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Surgical, Medical and Mechanical Dentistry,

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A. HILL, D. D. S.

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No. 1.

A Birds-Eye View of Some of the More Important Points of Medico-Dental Practice Illustrating the Importance of Thorough Education. By Dr. WM. A. PEASE, Dayton, Ohio.

Medicine as a science. Its antiquity and claims for esteem. From modern investigation, a brighter era about to dawn. Science an Admirer of Labor. The Mastery of the whole Science Essential to Success. The Folly of expecting Skill from Superficial Education. An Illustration from a discovery in Astronomy. An auspicious indication of the progress of Medicine. Specialties essential to Perfection. Complete Education necessary to accurate Diagnosis. Dentistry a speciality. Its present condition. Mechanical Dentistry, one cause of toleration of Quackery; the low estimate placed on the preservation of the teeth, by the community another. The aims of Scientific Dentists, Mal-practice to extract aching or ulcerated teeth. A different grade of Education necessary. The pernicious effects of Artificial teeth on the Community and the Profession. A protest against them. Give the Devil his due. Too great prevalence of Artificial Teeth and undue importance attached to them in high life. The magnitude of the blessing a great curse. The criminality of ignorance in the healing art.

Medicine, as a science, presents a vast, and yet, a diversified field, wherein the most perfectly developed, and the highest cultivated of human intellects, may range and find continually new matter for investigation, new materials to analyze, and laws, hitherto unknown to our philosophy, by which the complicated machinery of our animal and mental existence is governed and adjusted with a nice equilibrium an ever varying scale, to the mutations, contingencies and changing conditions of the outward world. It is not an exact science, admitting of clear and precise definitions and rules; founded on known laws of the human economy, from which, a condition being given, their action may be predicated, and another and future condition demonstrated; but it presents many exceptions and anomalies; perhaps the off-spring of the artificial habits and vices of society, but which, nevertheless, serve often to perplex and confound the most sagacious and profound. While we are not insensible to the many improvements modern investigations have produced, we are proud to acknowledge, that ours is not a new science with all the excrescences and mushroom growths of fancy and indigestion; but is characterized by the proved truthfulness, solidity and usefulness, rather than the brilliance of its acquisitions; and possesses many of the hoary attributes of age, and reaches

far back to that misty and shadowy period of mythological and legendary lore; where the tangible and concrete vanish in the exuberance of the ideal, and where, it is reported to have received a portion of the divine afflatus and enjoyed the propitious smiles of the gods; thence blessed, and diffusing blessings in its course it has descended in a constantly expanding channel laden with the accumulating wisdom and experience of the wise and good of all ages, and reaches us venerable even in its acknowledged imperfections, and disposes us to love it as our cherishing mother, and defend it from all sacrilegious hands, and to cry out to all the modern inventions and isms that seek to supplant it in popular favor, *procul! o procul este profani!*

Preeminently, this is an age of improvement! Founded on the solid basis the past has furnished us, we are enabled to accomplish wonders. All around us, in every department of science or art, in the material or immaterial world, in the heavens and in the bowels of the earth, wherever eye can reach or mind can soar, quick springing from the touch of the divining rod of modern investigations, start discoveries and inventions, richer than auriferous transmutations, and more wonderful and dazzling than the fetes of necromancy and magic; and crowding on the wings of the lightning, they come to announce themselves as ready for our use, and subservient to our command. Every moment is pregnant with something new, grand or useful; and before we can turn from the labors of the present, the next demands our attention to a fairer and nobler offspring. In the midst of this general upheaval and commotion, this moulding of plastic elements and production of new materials and compounds, from newly discovered affinities and revulsions; this preternatural activity of mind, are we not to expect, that the science of medicine will progress in a corresponding ratio with everything around it; and from the constant attrition of aroused mind, the auxiliaries of a better chemical, anatomical and microscopical knowledge brought to bear upon it; a brighter era is about to dawn upon us, and unfold to our view, the mysteries of the human system, the laws of life and those remedial agents; a bountiful providence ever mindful of man, has provided to meet the wants and exigencies attendant on his sojourn here. Science is a coquettish maid, an admirer of labor; and though she may smile and dally for a time with the luxurious votaries, the more easily to beguile, and at last to elude them; she will only yield and receive the embraces of him, who, after a long and constant attendance, has toned himself up to a vigorous manhood, and proved himself worthy of her smiles, and capable of appreciating and fully enjoying her unfolded charms. Without this long and painful probation—this preliminary labor—the mastery of the whole science of medicine—I do not mean the capability of repeating like a parrot, the veiled wisdom of the text books, but the mastery of the nature and laws of the disease, the education of the senses to a nice perception and capability of taking cognizance of all the minutiae as well as the prominent phases of disease; of diagnosing accurately, and tracing dis-

ease from its point of manifestation to its primary seat. Without this power the capability of going out from the stifled wards and consulting nature in her freshness, purity and beauty, and wherever in her ample fields or in the broad domains of science or art, aught can be found apposite and adapted to our wants of appropriating it as a legitimate offering to the shrine of disease—without this universal education, observation and power of continuity of thought, as well as dexterity in executing our purpose, in adopting means to ends and capability of diving beneath the supernatant obstacles, apparent anomalies and masked phases, irreconcilable to our theories, and plunging deep down in medias res, prying into the arcana of nature: we will never be able to discover the key, that will unlock to us all her stores and make medicine what we so much desire—a perfect science, governed by known laws. It is a folly to believe, that the seventh son, or a man without education, unless possessed of the most extraordinary genius, can, by taking a few lectures, without a long subsequent study, and the removal of almost insurmountable obstacles, become, aught but an automaton, a good nurse or respectable granny. He cannot reason from the data he possesses, from the *post hoc* deduce the *propter hoc* in time to anticipate and attack disease in its incipency; instead of allowing it to mature and fall on him with the weight of a giant. Success, in the practice of medicine, and in the development of the laws of health and disease, must be sought for among the same class of persons, and from the same means that would produce it in the other sciences and professions. We must not calculate to maintain a high position for science or skill, from chance or the lucky thought of a “dunder-headed Dutchman;” but must resort to, and sedulously employ the same means that produce success in them.

Leverrier, thoroughly versed in all the known laws and phenomena of the heavens, while examining the planet Herschel, discovered that it occupied a place in the planetary system, different from what astronomers had assigned it. Their calculations were exact, the planet was astray, wandering, without law, aimless. A cause there must be—within its orbit, nothing could produce it—it must be exterior. He applied himself to the task, measured the space between the calculated and real position of Herschel, calculated the force that would produce it, and gave existence and form to that force, in the shape of an unknown world, and then, calculated its distance from the sun, its size and density, and period of revolution, assigned it a place in the heavens, and then, directing the telescope to be pointed to the place, the largest planets, was seen whirling its way around the sun, in the exact place he had calculated, acting on and being acted upon, by the other planets, modifying and giving regularity to their movements, and rendering them determinable, harmonious and intelligible. Here is a beautiful example of what may be expected in any science or profession, from the investigations of thoroughly educated men. The failure of Herschel to pursue the exact course and occupy the place among the stars as—

signed it by the mathematical calculations, had been unaccountable to a man of inferior education; but it convinced Leverrier, there must be a vast force of attraction exerted upon it at that conjunction, and that force must be an unknown planet, revolving in the unexplored regions of space. He calculated its elements, assigned it a habitation among the stars, gave it a name, and made himself as familiar with its appearance, as with the face of a friend; although he had never seen it, or had cause to believe in its existence, except by the perturbations and irregular movements of the planet Herschel.

Perhaps the most auspicious indication of the progress of medicine in our day, consists in the division of the labors and duties of the profession into specialities, and assigning them to members, who by education or talent, are the best calculated to practice them with success. Genius is ever partial, and dispenses her gifts with a chary hand; and few, however comprehensive may be their genius, or untiring their labors, can hope fully to comprehend and discharge all the duties of the profession, with equal clearness and facility. Their views must necessarily be distracted by the multiplicity of objects demanding their attention, and lack that point, penetration and clearness of outline, a closer view, a more circumscribed field, and fixed attention to one point had given. But, while we advocate the division of our profession into specialities, we wish to inculcate with all the force of thought and language, the great indispensable requisite of a thorough grounding, a complete mastery of the whole science, and all its adjuncts and collaterals; that may either remotely or proximately be brought to bear and shed light upon it. Thus, the surgeon should be a good physician, obstetrician, oculist, &c., so far as theory and a close examination of the operations of the professions of those departments are concerned. Once a master of these, he should bend all his energies to the perfection of himself in his peculiar department. This, with the study, not only of books, but morbid anatomy, systematically, will enable him to meet all reasonable demands, and acquit himself with credit. It is this common education of the surgeon, oculist, &c., that gives them a common feeling, and causes them to fraternize, by giving them a common platform, and kindred habits of thought and study. They are all members of the same noble science, though they direct their energies to the perfection of different branches.

Without this thorough mastery of the whole science of medicine, the surgeon would be but illy calculated to decide, when to trust to the *vis medicatrix naturæ*, or when to resort to the knife. He might mistake an innocent excrescence for a malignant growth, and cut, where the disease was but the exponent of a specific taint, and amenable to treatment. It is the mastery of the whole science, that gives power, that begets skill. Partial education produces distorted views, and an immature judgment; which by chance may be right, but is liable to be wrong and ultimate in disaster, and in a case, where life or death, health or disease, beauty or deformity must be the fruit; begets a fearful responsibility for him, who rashly or unadvisedly assumes the prerogatives of science, or dares to interfere. Accurate diagnosis should precede all remedies, which cannot be expected from incomplete education. We all know, that lemon juice is a specific for scurvy, but, none but a physician, acquainted with the characteristics of the disease, would think of employing it, before blundering on almost every other kind of medicine.

Having thus cursorily glanced at and reviewed, in a desultory manner some of the causes of the progress of general and special medicine, let us turn to dentistry, a

young, but vigorous offshoot; but one, taking cognizance of a not unimportant branch of the diseases of man, and consider its present condition, its means of development, and its future prospects. Already has it passed the embryotic stage, and presents itself as a vigorous and comely youth, verging on manhood, around whose feet, are clustered many beautiful and artistic creations; displaying much skill, and affording high auguries of its future and more mature labors.

No longer will it cohabit with mere tricksters, or seek from necromancy, the caballa, or even the wonderful potency of charms for success; but building on a knowledge of medicine, and the diseases of the human system in general, it seeks by appropriate remedies to remove disease of the teeth and mouth; whether appearing as primary affections, or metastatic and reflected from other diseased organs or lesions. It eschews the idea, that dentistry is purely mechanical—an art; and that the skilful stopping of the holes in the teeth, irrespective of the character of their disease, the density of their structure, the constitution and present health of the person, his habits of life, idiosyncracies and taints, will be attended by the same uniform success, without constitutional or corrective treatment, that, the stopping of so many holes with putty by a carpenter, might be expected to produce. Dentistry is mechanical, inasmuch as many of its operations, at present, require the use of machinery, or instruments of mechanism, as in mounting artificial dentures; but its operations proper, are of equal importance, often as painful, and require as much skill and dexterity in manipulation, as those of the oculist or surgeon. It is the present necessity of discharging two-fold duties in our profession, or the junction of an art or trade, requiring little or no mechanical knowledge, and one that can be as successfully discharged by a mere artist, as by the ablest professor, and is, strictly speaking, as foreign to it, as the manufacturer of artificial legs, is to the surgeon, or eyes to the oculist; together with the general exemption of errors in practice, from a fatal termination, that has given license to men, uneducated in medicine, to attempt its practice. They know the low estimate placed on the preservation of the teeth by the community, and for what slight pretexts they will consent to loose them; and they also know, that the teeth, they cannot temporarily patch up, they can extract and replace, and they boldly venture out, when they would not have the hardihood to meddle with the tunics of the eye, the patient on the operating table, or to approach the parturient bed. From great exigencies or demands for education or high artistic skill, is begotten the skill to satisfy the demand. So long as the community are satisfied with wearing artificial teeth, and are willing to loose their own on so trifling pretexts as at present, they will be supplied with men just competent to discharge those duties and no more. Educated men are more or less gregarious, and choose those walks where they can enjoy a community of thought, a noble emulation, and just appreciation. As their education and aims are high, they require like associates; and have generally too just an appreciation of the value of their services, to consent to jostle in the crowd for pence; when in other professions, pounds are the reward. They are not satisfied with the present, and though conservative, they wish also to be progressive, and aim at a more perfect state of society, greater individual enjoyment, and a pleasure flowing from a highly cultivated understanding, and the exhibition of noble deeds. As dentists, they would seek to allay pain, discover its origin, and remove the cause that produced it, and restore the harmony and equilibrium of the system; rather than to discover the means of mutilation, and most effectively of destroying the offending organ. If they are unable to accomplish this, and are forced to resort to the knife or forceps, they feel humbled by the reflection, that their skill was not

sufficient to save and satisfy the confidence society reposes in them. Guthrie, in a recent lecture on surgery, has so fully expressed my views in regard to operations, that I take pleasure in presenting them. He says, the "amputation of a limb, is the last resource, and the opprobrium of surgery, as death is of the practice of physic. It being, notwithstanding, impossible to do impossibilities, and save a limb or life which can no longer be preserved. Art and science at that point, cease to be useful."

The practice of dentistry is not now what it has been, or was in earlier periods of medical history, when disease and pain in the teeth, forced medical men to pay some attention to them, and employ such means as emergency demanded, or was dictated by their knowledge or caprice. Happily, much of the obscurity with which the nature of their diseases and their appropriate treatment, formerly was enveloped, had been removed, and we are able to mitigate, if not remove, most of the suffering resulting from decay, and often to restore the teeth to their healthy functions. Instead of being a field devoted to empiricism, dentistry is now frequently practiced by gentlemen of talent and cultivated minds, who bring to the study of disease, and the means suitable to prevent or arrest it, a vast fund of medical and pathological knowledge, and a large experience in morbid anatomy. Already have their labors been productive of fruits. No longer is an aching or diseased tooth (in many parts of our country,) turned over to the tender mercies of the key; but a more accurate diagnosis has referred the locus morbi, often to other distant organs, or so divested disease of its terrors, as to make it obedient to prophylactic or local remedies. Formerly, the extraction of a diseased tooth was excusable, if not necessary; but with the abundant resources now at command, for quickly, and often radically curing tooth-ache, the extraction of a tooth, simply because it aches, cannot be justified. It would be as amenable to the censure of malpractice to do so, as to amputate a limb for simple fracture, or a non-malignant tumor. The teeth are a part of the system, partaking of its idiosyncracies and taints, governed by its laws, and largely endowed with sympathy for its various organs, and responding to correctives of its morbid secretions, erethisms and taints. Disease of the same character and stage, in different individuals, will require different treatment to be successful. What would be perfectly appropriate in a bilious or sanguine temperament, would be pernicious, in a scorbutic or ulcerated diathesis; and yet, both can be treated with nearly equal success. Heroic treatment might be admissible, or even necessary in one, while the most gentle would be necessary in the other. The recuperative powers of nature are ever various, and must be estimated in all difficult cases. I speak with reference to the various diseases of the mouth and dental periosteum, by which, teeth otherwise healthy, or still within the reach of operative dentistry, are lost, or rendered comparatively valueless, by chronic inflammations or suppurations. For I hold, that comparatively few teeth, even those, where from culpable negligence, caries has been allowed to progress so far, as to undermine their structure, and leave nothing but a shell, if still sufficiently strong to sustain the pressure, necessary to consolidate a plug, can be rendered valuable for years, if not for life.

I go further, and assert as my firm conviction, founded on a practice running through a considerable number of years, in which this part of dental practice has received attention, that these diseases of the investing membrane of the teeth yield as readily as the same class of diseases in other parts of the system; and though often obstinate and tenacious of their hold, the same patience, the same resort to

medical skill, the same judicial application of medical means that would be applied to a diseased finger, would produce as salutary results in the restoration of the teeth to health; and farther, that the extraction of a tooth simply because it has ulcerated, without a thorough resort to the means suitable to remove it, should cover the dentist with as much opprobrium as it would the surgeon to amputate a finger for an uncomplicated felon. But before this can be fully accomplished, before these teeth shall receive the full share of attention the importance of their preservation demands, before well directed efforts for their preservation shall become universal and be considered an essential, a legitimate field for the dentist much will remain to be accomplished, mountains of prejudice and ignorance will have to be removed—an educated class of dentists will have to take the place of the pullers and drawers—the more mechanical—the manufacturers of tinsel shining plates, and pretty little white teeth—the perfectors of mechanical dentistry. The people will have to be educated, the practitioners of medicine will have to be educated—educated up to that point where they will give the teeth their true and natural importance, as a part of the physical man; and view them as living necessary organs to his perfect animal and mental development, and not as mere parasites, bony excrescences, or accessories of beauty. They will have to be taught the relative value of natural and artificial teeth, as a means of preserving health and prolonging life, and the vast superiority in this respect of poor natural teeth to the best of the glistening, preternaturally white and small artificial ones. They will have to learn that in neglecting their teeth they are impairing their health, shortening life, lessening its enjoyments and transmitting to their children weak constitutions and teeth too delicately constituted to long resist disease till the genus homo shall become dentated; and though art may measurably, so far as external appearance is concerned, supply the place of the natural organs, they are rendering their mouths tasteless, foul and malarious to themselves, and their breath as repulsive to their friends as the emanations of the charnel house. Besides, they are emasculating manhood, removing and obliterating those external signs the Creator has placed on the face as a key to the soul that burns within. They are leveling down to one common mould, and one common monotony, giving a similar expression to the giant and the dwarf, the lion and the lamb, and clothing man with a borrowed and fictitious and libilous expression, destroying his identity, and rendering the “human face divine” as expressionless as the sickly figures in a French fashion plate.

Moreover the community must learn to distinguish the true from the false dentist, and that great mechanical ability, although a useful accompaniment, is not a necessary qualification of a dentist; that dentistry has something higher and nobler for its aim, requiring greater talents, study and preparation, than to become a skillful dabler in pottery, or a former and swedger of dies, inasmuch as it has to deal with living, sensitive organs and tissues, to study disease in all its stages, from its incipiancy to its culmination and final termination in death; and in those forms, which more particularly fall to its province, by the skillful application of remedies, prevent or mitigate pain and restore diseased organs to their normal condition; and that it has no sympathy with the vandals who seek to destroy the handy work of the Creator, and substitute it is true, a beautiful, but frail ephemeral and cumbersome structure. It is the fatal facility of manufacturing artificial teeth, and the confessed ignorance of the cause of premature decay of the natural ones, as well as a want of a definite and successful method of combatting certain forms of disease, that has led us all, like an *ignus fatuus*, astray, wandering through the swamps

and quagmires to us, of mechanism, seeking for poisons, calcareous or silicious earths, and even invading the sooty and scathy regions of Vulcans, and compelling the service of his fires and hammers rather than high up on the mountains in a clear way, in a bracing and balmy air, with buoyant spirits, pursuing our investigations towards the *fons et origio mali*, and gathering from its bright sunny slopes, or by the margin of the clear crystal springs, those remedies a bountiful providence has designed as a specific for every taint, a remedy for every ill. While I feel reluctant to breathe a word, to utter a syllable, to entertain an idea that could, in the remotest degree, convey an impression that I undervalue the importance of the mechanical department, or that I do not heartily approve of the labors of those who have contributed so much to the perfection of this branch and are seeking still farther to improve it; still, I must be permitted to record my dissent, to enter a protest against making it a measure of skill—the height of dental attainment; especially to those entering the profession, to the neglect or detriment of that equally high, noble and more legitimate field of dental investigation, the study of the pathology and therapeutic and operative treatment of the teeth, with reference to their preservation and health. That the insertion of artificial teeth, and perfection and facility with which it is accomplished has done much towards making dentistry what it is, by calling the attention of the community to it, and creating a confidence in its resources and utility; besides familiarizing them with the various operations on the teeth, and inducing them to look to the dentist rather than the physician for relief, is freely admitted; still it is but reasonable to suppose that, had the same labor and talent been directed to investigating the nature of decay, and of the appropriate remedies for its prevention and cure, greater light had been thrown on these occult workings of disease, and some preventive or panacea had been produced to stay the ravages of this foul destroyer of our mouths. How gratifying soever to our feelings as professional men may be the favor with which the public receive any new improvement in mechanical dentistry, giving evidence as it does of the appreciation of the skill and labor that has been applied to this department, and has already brought it to so great perfection, both in appearance and utility; yet, in the magnitude of the blessing, the universality of its application, its capability of increasing the beauty, especially of females, and its prevention of a possibility of pain by removing the cause, there is much to arrest the attention and arouse the fears of the more calm and considerate, let this great, this almost inestimable boon we have in our power to bestow on afflicted humanity, by misdirection, over estimation, possibly the cupidity of some, or by diverting scientific investigation from the higher and more legitimate field of operation, instead of the great blessing it is when judiciously employed, as the dernier resort, the forlorn hope of the toothless, may become shorn of its capability of good, of its intrinsic merit, and ultimate in a great, an unmitigated evil. Already the too great prevalence of artificial teeth in the community, especially in the higher circles, and the facility with which they are inserted, has begotten an overestimation of their value, and a corresponding disregard to the natural ones. We have improved and refined the improvements in extracting instruments to such a degree that we have removed the last bulwark to the safety of our mouths. For slight and insufficient reasons ladies and gentlemen, of otherwise good information and judgment, present themselves to their dentist and desire the removal of their teeth; often when but slightly diseased, perhaps irregular or discolored, but which, by judicious treatment, might be made healthy and useful for years, if not for life. Does an erratic

pain course along the cheek or head, the result of an exposure to a current of air—of an overloaded dyspeptic stomach, or an overtaxed abused nervous system—straightway they fly to a dentist, and the poor teeth have to suffer. On many points of dental practice there seems to be no definite rules to which to refer in difficult or doubtful cases; but each one follows the bent of his genius or inclination and operates or not, as caprice or judgment dictates. This is all wrong, and should not be, as it begets contentions and disputes, lessens our fraternal feelings—our confidence in each other, and the confidence the public should repose in us. Definite land marks should be established for our government, beyond which, if an operator goes without the most urgent and obvious reasons, he should be held up to the opprobrium of an insulted profession and injured community. There being no universally recognized and published rules for the government of our profession, many are ignorant of the duties they owe to the community and the profession, with regard to operations, and often perhaps think they are doing God and humanity service in their murderous operations. To illustrate my views on this point, I will present a case. A strong man, with robust health suddenly finds his teeth defective—a part of one has crumbled off at dinner. He has seldom known disease or pain, and trusting to an iron constitution that has sustained him thus far in life, he has never anticipated the evil day, or sought for remedies for a disease he might never have. He, indeed, knows that dentists and doctors exist, and has heard that teeth are plugged, extracted and inserted, but has no clear and definite knowledge of the nature of the operation. But his teeth ache—he is half crazed and maddened with pain—something must be done, and quickly. He has never reflected that there may be different grades of skill, but assumes that all who have *signs out* must be the ones; or, if he now attempts to discriminate, he thinks it is all mechanical, and determines that the man who has a genius for mechanics, who can whittle out the most incongruous and uncouth things from a pine stick, or can make a pocket wind mill, is just the one. Perhaps he has read in the papers of the “perfectors of mechanical dentistry,” and of the “matchless beauty of continuous gums,” and knowing one of that ilk, he flies to him for relief. His mouth, on examination, presents the following appearance, viz: The teeth are large, strong, of dense structure, and closely set or crowded, and nearly all of them have diseases on their approximal surfaces, which has insensibly progressed, till it has undermined their structure, endangered the nerve, and the dense enamel is liable to crush in. It is a bad case—the dentist is in a fix. His skill is mechanical—he ridicules your book-men, and never reads. But the man must be attended to. He doubts his capacity to plug them and make the plugs stick, and knows he cannot doctor the inflamed nerves into quietness and make them behave. But it won't do to confess ignorance, and loose both reputation and patient—besides a large set of teeth is a fat job and will consign all the diseased teeth in the mouth to the tomb of the Capulets, beyond any tell-tale resurrection of out coming plugs. He declares the teeth must be extracted. The patient is astonished at the decision, but having a tangible proof that all is not right, submits, and in due time the set is inserted. A year has elapsed—the man has got along as well as could be expected. He has had to bestow more care on his set, to make it endurable, than he ever did on his natural teeth. But the teeth, to which it is attached, having to sustain the labor and strain of the set, as well as what naturally belonged to them, begin to revolt and show signs of disease. Chronic inflammation intervenes—they are lost. A whole set takes their place. The man has lost most of the pleasures of the table,

mastication is with difficulty performed, the sense of taste is impaired, the stomach over worked, while his mouth is filled with a ponderous piece of mechanism, uncomfortable and disagreeable to himself, and disgusting to his friends. Let us survey the man! a practised eye can already discern indications of impaired nutrition. His once ruddy countenance begins to show symptoms of anemia, his stalwart figure has lost its firm and erect carriage, atrophy seizes his iron muscles, and his aldermanic embonpoint disappears. He drags out a pleasureless existence, and prematurely dies. This is no fancy picture, but a stern reality to be met with every day. God never made the teeth for the forceps, but designed them for use during life, and such is the economy of our system, that the loss of one begets the loss of others, or serious disturbance of their arrangements. They insensibly seek the support of the lost one, and in their endeavors to fill up the void, assume unnatural and unhealthy positions, by which in occlusion they perform an increased amount of labor, and receive an unnatural pressure, while they are less able to sustain it; or, in other words, have lost the long arm of the lever. Alveolar absorption ensues, often accompanied with periosteal inflammation which tell fearfully on the teeth. Trifling though this may seem to us, who from infancy have been accustomed to measure the loss of a tooth only by the amount of pain the extraction occasions, yet, who can say but it may tell fearfully in the diminished number of years in our lives, that it diminishes our pleasures and comforts, mars and distorts our features is certain. Or, who can say that the man who unnecessarily extracts a tooth, is not as much a murderer as he who administers a slow poison. To a sensitive man, one endowed with the nicer feelings of humanity, not wholly engrossed with self, one that can occasionally disintegrate himself from men, enter in, dwell, sympathize and incorporate himself with the great mass of humanity, flowing, surging and eddying around him, and by a sort of mesmeric sympathy, an iodized delicacy in receiving impressions, perceive their wants and sufferings—to such a man what can be more harrowing than to learn that the act—treatment he had intended for their benefit, had resulted in serious evil, irreparable injury; and that, too, from a neglect on his part to ground and thoroughly perfect himself in those studies, and that thorough knowledge of medicine, that had enabled him to diagnose the disease and afford that aid the community had a right, ex-officio, to expect at his hands. Day by day, and week by week, as he sees the victims of his cupidity or ignorance, like ghosts stalking around him, and marks how their attenuated figures become longer and leaner, their cheeks more sunken, their eyes more hollow and unearthly, and their skinny, bony fingers grasp a stick as a frail support of their unsteady step, will not his conscience like a culprit accuse him and cry I, I, I did it. I was a fool, and took on the guise of wisdom! Here is the price for which I robbed them of their health—their teeth! Then will the regular, preternaturally white and small artificial teeth be beautiful in his eyes! Will not they chatter? Will he rejoice in the perfection of his work, the matchless beauty and brilliance of his polished plates, or see perfection in continuous gums! And then will he find relief in the exclamation,—I am a good mechanic!—a respectable granny!

Correspondence.

AMPUTATION OF THE LOWER JAW.

BRIDGEPORT, Ct., Nov. 17, 1853.

EDITOR OF RECORDER—DEAR SIR :—Agreeably to your request, I herewith transmit to you for publication in the *Recorder* a statement of the case to which you allude. Respectfully yours, CHARLES MERRITT.

Miss Wilson, aged 37, and of a scorbutic constitution, was attacked about eleven years since with a severe pain in the second inferior molar tooth on the right side, resulting from an exposed nerve. The removal of the tooth was advised, to which she would not consent. Inflammation and swelling of the face soon occurred, followed by suppuration and the discharge of purulent matter externally, through the cheek, which continued about three months. She then applied to a physician to remove the tooth. He succeeded in extracting but one of the fangs, leaving the other in the jaw. The offensive discharge continued for several weeks longer, when another Physician removed the remaining fang, after which the external ulcer healed; but the jaw had become so diseased that necrosis, or a death of part of it, took place, which continued to manifest itself by painful ulcers and discharges of offensive matter, from within the mouth, for a period of about eight years, when a discharge again occurred externally in two or three places. This continued until May, 1850, when her sufferings having become so intense, and her constitution so impaired, she sought for more experienced medical advice. After consultation, they came to the conclusion that to save her life it would be necessary to remove a portion of the jaw.

The operation was performed by Dr. J. Knight, of New Haven, assisted by Dr. Jewet of the same place, and Drs. W. B. and D. H. Nash, of this city, and the writer.

The patient having been placed on a reclining chair, and put under the influence of chloric ether; the following operation was performed as described by Dr Jewet:

"The operation lasted 40 minutes, and consisted in the removal of a portion of the lower jaw on the right side, from within a quarter of an inch of the symphises, or middle of the chin, to within three-quarters of an inch of the angle. The incision through the soft part was made directly over and on a line with the jaw; this was crossed by another incision perpendicular to the first. After dissecting up the flaps, and exposing the bone, (which was found to be almost destroyed by ulceration,) it was removed with the saw and bone forceps. A mass of disease was also removed from the inside of the mouth directly in contact with the diseased bone. After securing the arteries, the wound was dressed with stitches and adhesive plaster. The minute steps in the operation were the same as in all operations of this sort, and do not need to be definitely described."

The first dressing was removed two days afterwards, and the parts found in good condition. The patient rapidly recovered, and though now over three years have elapsed, has not had a recurrence of the disease, is able to masticate and articulate well, and presents very slight deformity, the chin appearing less prominent than before and a little inclined to the right.

EXCESSIVE HEMORRHAGE AFTER EXTRACTION.

Miss A., a young woman, a domestic, in the family of Mr. B. from the South, taking rooms at the Tontine Hotel, called at my office to have a right superior second molar extracted. The gum was lanced deep in consequence of the tooth being much decayed on the labial surface. The fangs came out separately, a large ulcerous sac was attached to one of the roots. The bleeding was free at first, though not sufficient to attract attention. She immediately left the office, much pleased with the relief afforded by the operation.

Two hours after she called again, saying her gums had bled much since she went away. I applied a pledget of cotton saturated with an astringent lotion, and she left the office. In about an hour she returned, considerably agitated, her friends having told her they feared she would bleed to death. I introduced several pledgets of cotton into the socket saturated as before, and quieted my patient by assuring her she would receive no injury from the bleeding, not deeming it necessary to be more thorough, as there was nothing apparently unusual in the case, supposing it such as is frequently met with, and that the hemorrhage would shortly cease.

About nine in the evening a message was left at my residence, saying my presence was required immediately at the Tontine. I was absent when the message came. On my return, I repaired to the Hotel. On entering the room I found the young woman lying upon a couch suffering from excessive hemorrhage.

I forthwith repaired to my office for suitable instruments preparatory for subsequent operations. Having thoroughly washed the cavities, I filled the sockets with plugs of cotton saturated with a tooth lotion prepared from pulve. nut galls and orris root, and taking care to press one pledget hard upon the other, and so on, filling each cavity, until the whole was completely filled. This together with a small piece of cork in place of the crown, I directed the patient to close her mouth, which brought the antagonizing teeth against it, thus forming a solid compress, and the operation was complete. The hemorrhage immediately ceased, and the patient was at once restored.

S. MALLETT.

The following communication from Dr. Robertson speaks for itself. The sheet alluded to is styled the "Dental Monitor," published by Dr. F. Y. Clark, Griffin, Ga. We believe the editor is given to such tricks, and if we mistake not his attention has been called to the subject once or twice before. Some of our own productions have been appropriated in like manner.—ED. RECORDER.

MANCHESTER, N. H., Dec. 13, 1853.

DR. A. HILL—*My Dear Sir*:—With this I enclose a part of what purports to be a Dental periodical, but what seems to me to be in reality a quack advertising sheet. It was sent to me by my friend Dr. S. P. Hullihen to show me what liberties were being taken with my essay. Now I cannot deny, that to be quoted, even in that manner, without credit, by a respectable journal, would flatter my vanity—but I must say that to be foisted up at the head of a self-adulatory advertising sheet of a mountebank, and nolens volens, does not afford me any gratification. Is it not humiliating that one must, or may be the unwilling instrument of men? But what can an honest man do under such circumstances to relieve his own conscience? Can such a man be rebuked for such acts without adding to their already undue importance? A man who respects himself, can hardly feel like writing at all if his writings are to be subverted to such vile purposes. Is it not so? Have you not felt the same?

Very respectfully,

ABR. ROBERTSON.

Editorial.

TO THE SUBSCRIBERS OF THE RECORDER.

During the past year we have become convinced that the labors of an extensive and constantly increasing practice, together with the duties connected with the Dental Recorder, are more than we could perform without the sacrifice of health, and accordingly arrangements were made, before the close of the last volume, with parties engaged in business in the city of New York to transfer the Recorder to them, to be continued either as a monthly or bi-monthly journal. Circumstances, beyond their control, delayed the appearance of the first number, and finally defeated the plan altogether.

After a delay of three months Dr. A. HILL, well known to our readers as Associate Editor of the Recorder, for the past two years, consented to assume the whole responsibility, and continue it as heretofore. Our determination to retire from the charge of the Recorder would have been announced in the last No. of Vol. 7 if we could have foreseen this delay.

It was with great diffidence that we assumed the charge six years since, and during the whole of that time we have felt our own inability to make the Recorder what it should be to meet the demands of the profession; but our aim has been to render what aid we could to those in need of *practical information*, by making the Recorder an independent journal, free from the controlling influence of any party or clique, and as strictly practical as possible; hence, in making selections from other journals we have always preferred those articles which treated upon practical subjects. Most of our editorial articles have been of the same character, and it is believed that the Dental Recorder has contained, during the past six years, a larger proportion of practical information than could be found in any other dental journal.

We commit the Recorder to the care of Dr. HILL with entire confidence in his ability to make it a more entertaining and instructive periodical than it ever has been while under our charge, and bespeak for him the encouragement and patronage of all our subscribers.

CHARLES C. ALLEN, 24 West 11th street.

NEW YORK, Jan. 1, 1854.

In assuming the entire responsibility of the management of this journal it will doubtless be expected that we will foreshadow in the present No. the course which we intend to pursue, at least to some extent, and the principles by which we shall be governed in its Editorial management.

Let it then be understood that the Recorder is to be an *independent* journal, subject to no clique or faction whatever. It will be open to all communications touching matters of interest to the profession, not otherwise objectionable. We shall endeavor to guard with strictest care against needless, offensive personalities. We shall not withhold any well written article that may chance to oppose our own

views, simply because of such difference. We shall fearlessly advocate whatever we shall deem important to the interests of the profession for which we labor. It will also be our aim to keep our readers advised of everything new in the various departments of Dental practice, and to make the Recorder a welcome visitor to the office of every subscriber.

We are not sure that we shall be able to justify the expectations which the kind words spoken in our behalf by our retiring confrere may excite in the minds of our readers, but we will *try* to justify them.

We are located at a convenient distance from the noisy city—free from the unpleasant rivalries which sometimes interfere with an enterprize of this kind, and hold ourself more free from the pressing demands of a large practice than many of our city friends can consistently do. We are determined not to be harrassed to death with business, the brief space that we shall live in this world.

With these remarks touching our future course, we offer our kindest greeting to the readers of our journal.

A. HILL.

OUR DELAY.

The circumstances with which we are connected in transferring the proprietorship of the Recorder have caused us some delay in our present issue, which we hope to avoid in its future numbers.

Having assumed its sole management, we hope to have it forthcoming the first of every month.

We shall be happy to receive communications from any member of the profession touching the interests of the same. Short articles, Reports of Interesting Cases, and Practical Hints will always be welcome. Do not think that lengthy and elaborate professional essays are most important. Comparatively few in the profession read them with care and attention, however interesting they may be. But short, useful, practical matters are always eagerly devoured. We mean to make the Recorder a vehicle of everything interesting and important that may transpire in relation to Dentistry. And our resources for this purpose are not scanty. Send on your communications.

DENTAL PATENTS.

Our article on Dental Patents, published in the April No. of the American Journal has called forth a response from the pen of Prof. Arthur of Washington, D. C., in the July No. of the same journal, as also one from the pen of Dr. J. W. Keyes of Quincy, Fla., in the Oct. No.

The first, from the pen of Dr. Arthur, is so manly and dignified in its tone, and so free from offensive personalities, that we are half converted to his views, by its spirit alone. And we cannot but hail, with unfeigned pleasure, this courteous and manly demonstration of opposing views and feelings upon a subject of no little interest to the profession.

This is the spirit which we earnestly evoke. Let it prevail, and our profession now represented by so many violent and opposing factions will soon present an

entirely different aspect, both to the world, and to the different members of which it is composed. It is *something* to be treated as a man and a brother, although perhaps an erring one. But fire and vengeance, thunder and lightning, brick bats and other coarse missiles will not answer, where reason and common sense are sadly wanting.

We are not inclined at present to renew the controversy, as perhaps our readers have had *quantum sufficit*. Yet we think there is much ground to be occupied before the matter is finally adjusted. We will, however, thank Dr. Arthur for the spirit which he has manifested in a discussion of this kind. Nor would we omit saying a word or two in commendation of our friend Keyes, touching the same thing. Toward the close of his article, especially, a genial spirit comes over him, and he speaks as follows:—

"We are pained that any thing in our former article should have wounded Dr. Hill, for his talents and attainments merit our admiration, and he has it. He was specified, because he stood so prominently; not because there was anything *venomous* in our feelings towards him, for we look longingly forward to the day when his '*early teachings*' will have its legitimate effect," &c.

Now, this does pretty well. We certainly think "there's a good time coming."

NEW ODONTALGIC REMEDY.—Dr. D. R. Whipple recommends in the July No. of the Dental News Letter, 1853, the Oil of Turpentine (*oleum serebinthinæ*) as a remedy for tooth ache, applied on a pellet to the affected tooth, securing it with a little dry cotton.

THIRD EDITOR.—Dr. A. S. Piggot, known as the author of several ably written papers on the chemistry of the fluids of the mouth, also the author of a large work recently published on Dental Chemistry and Metallurgy, is now one of the editors of the American Journal. Few periodicals can boast a stronger editorial corps than the American Journal at the present time.

THE FAMILY DENTAL JOURNAL, Edited by Dr. D. C. Estes, Dentist, Albany,

Is a neat little 16mo. filled with interesting and instructive matter, and designed to diffuse popular instruction upon the subject of Dentistry. Its typography and mechanical execution are excellent, and its object most commendable. The great public are sadly deficient in knowledge respecting the subject matter upon which it treats, and need to be instructed. We are heartily glad that Dr. Estes has taken the matter in hand, and wish him an abundance of success. We have much to say upon the subject of popular Dentistry, but cannot say it now.

While our hand is in, we may as well notice another little sheet which has come to hand entitled

THE PRACTICAL DENTIST, Frank Fuller, Editor and Proprietor, Portsmouth, N. H.

Object—to diffuse correct information upon the subject of Dentistry, and thus advance the interest of the profession, and also to make his sheet a medium for advertising and increasing his business.

We issue an extra number of the Recorder for January, so that back numbers may be had by subsequent subscribers.

We respectfully request any person to whom the Recorder may be sent, who may not desire to continue a subscriber to return the January number immediately to us, with their address endorsed upon its cover. Those not complying with this request will be regarded as bona fide subscribers, and have the future numbers of the Recorder regularly mailed to them.

N. B. Those wishing to continue their subscriptions will please remit to us the sum of two dollars.

We acknowledge the receipt of several documents and manuscripts which we purpose to notice in a subsequent number of the Recorder.

We are not in receipt of the last two or three numbers of the "Southern Journal of Medical and Physical Sciences." *We regret its non-appearance.*

What has become of the "Dental Times"? Will our Baltimore friend inform us?

The article which we publish on Medico-Dental Practice, we copy from the Oct. No. of the Dental Register of the West. We commend it to the perusal of our readers for its many beautiful thoughts and valuable suggestions.

We clip the following from the Editorial Jottings of the Plough, the Loom and the Anvil, which we think may interest some of our readers:

SILVERING ALL SORTS OF METALS AND GLASS.—A patent has been recently issued in Paris for the process above described, of which the process is described as follows:

He takes 1 oz. of crystallized nitrate of silver, dissolves it in twice its weight of distilled water, and adds 9½ per cent. by weight of nitrate and liquid ammonia. He then adds six times the weight of the nitrate of silver, of spirits of wine, agitates the liquid, and adds 15 per cent. on the whole volume of resinous spirit (composed of one part of resinous matter by preference, gum galbanum, to five parts of spirits of wine.) The liquid is then left to settle, and filtered, after which it has added to it nine times its quantity of spirits of wine, with the further introduction of 8 per cent. of liquid ammonia, and a quantity of spirits of wine equal to its whole volume. The solution will then contain about five parts of nitrate of silver to 1000. parts of liquid. The liquid thus prepared and filtered may be used immediately in connection with a galvanic battery, in the manner usually practised by platers, but it is better to let it remain quiescent for some time. The anode or thin sheet of silver in connection with the positive pole, acts perfectly in this liquid, and gradually dissolves in the bath; the deposition commences immediately on the objects to be plated being introduced into the bath, in a white and brilliant form, and the thickness of coating can be regulated at pleasure. To insure its more perfect adhesion, in certain cases the metal may be first passed through a solution of nitrate of mercury. When glass is the material to be coated, a thin film of silver is previously formed on it, by adding to the liquid a few drops of spirits of cloves in a separate bath, and the quantity of ammonia used in preparing the bath is only from 2 to 8 per cent. By precipitating copper on the silvered glass, and then detaching the two metals, plates may be produced suitable for daguerreotypic or photographic purposes.

WHITE'S PREPARED GOLD FOR PLUGGING TEETH.

That the plugging of decayed teeth to the sure success of their preservation is an operation not only difficult and oftentimes extremely complicated, but the most valuable one that the dentist is called upon to perform, will be admitted by every one; and that *pure gold* is the material best calculated for this purpose has long since ceased to be a matter of discussion. But, even gold, when taken in the form heretofore used by dentists will in many cases, where the cavity is not easy of access, and where the packing of it properly is accompanied with difficulty, poorly subserve the object we hope to obtain.

That gold foil, in the hands of a skilful operator and under favorable circumstances may be packed in a tooth so as to exclude the fluids of the mouth there is not a doubt, but that it can be condensed into a "solid plug," (especially in the approximal cavities of the incisore) even by the most ingenious and elaborate process, and under the most favorable circumstances, is just as absurd, in my opinion, as to assert that dry, smooth paper may be pressed into pasteboard without the assistance of moisture. It is just as impossible to unite one leaf of gold foil to another without the application of heat, as it is to weld together two bars of cold iron.

In order to ascertain to some extent the solidity to which foil may be reduced by the amount of pressure that is usually applied in filling, take a decayed tooth that has been extracted, prepare and fill the cavity to the best of your ability with gold foil, exerting all the force in packing that the tooth will possibly bear; then saw it through the centre of the plug, after which, take a pointed instrument and attack that portion of the plug that has been exposed by the last operation, and you will find that in nearly every case it will pick to pieces in layers and generally crumble away very readily.

If this be the condition of the plug where we have every advantage in operating, what would be the condition of that one where the preparation of the cavity, owing to the position of the tooth, is attended with difficulty?

Fortunate it is for all, that a preparation of *pure gold*, which promises to overcome in a great measure the almost unsurmountable difficulties heretofore existing in plugging carious teeth has been produced and should receive the careful and early attention of the profession.

The superiority of this new preparation over foil is in its malleability, tenacity and easiness of application.

The principle feature is its tenacity—the facility with which one particle adheres to another, and which, with a moderate amount of pressure, is condensed to an astonishing state of solidity.

Having used the preparation nearly six months with considerable pleasure and satisfaction in its results, I take this method of recommending it to the profession, as being well worthy of at least a single trial.

It comes from the manufacturers in a soft and pliable state, ready for use; when placed under a magnifying glass it resembles coral mass.

Hoping that some who may read this article may be induced through its influence to make a trial of White's Prepared Gold, and may they be as well pleased with its use as I have been.

Your ob't servant,

A. T. METCALF.

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Baltimore College of Dental Surgeons.

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WA. HINGTON R. HANDY, M. D., Professor of Anatomy and Physiology.

ALFRED A. BLANDY, M. D., Professor of Dental Practice.

PHILIP H. AUSTEN, A. M., M. D., Professor of Dental Mechanics.

LEONARD N. WRIGHT, A. M., M. D., Lecturer on Chemistry and Metallurgy.

The fourteenth regular session will commence on the first of November, and close on the first of March. The introductory month devoted to Anatomical Dissections, Mechanical Demonstrations and Infirmary Practice, will commence on the first Monday in October. Infirmary summer session will continue twelve weeks each, commencing on the first Monday in March, and the first Monday in July. The Faculty having just completed an extensive enlargement of the College building, are now prepared to offer to the Dental students every possible facility for the acquirement of Professional knowledge and skill.

Tickets for the Course \$110; Matriculation \$3; Diploma fee, \$30; Dissective tickets, (optional) \$10; Summer Infirmary tickets, (optional) \$.5 each; Winter Infirmary tickets free. Payment in advance. Boarding \$3 to \$4 per week.

P. H. AUSTEN, Dean, 76 Sharp st.

New York Dental Recorder:

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

Vol. VIII.

FEBRUARY, 1854.

No. 2.

DEATHS FROM THE INHALATION OF CHLOROFORM.

From a Post-mortem Examination made twenty-four hours after death, conducted by Mr. Paget, we extract the following, as contained in the London Lancet for October :—

Now what do we learn by these accidental deaths, and the account of the post-mortem examinations? 1st, that the fatal effects may ensue in a very short or comparatively long time (three minutes in one case, and ten in the other;) 2d, that a fatty heart will cause death to occur in a much shorter time than is necessary when this organ is sound; 3d, that a perfectly healthy heart is no preservative from the fatal effects of chloroform; 4th, a complete anæsthesia by chloroform is no guarantee that a subsequent one will be harmless; 5th, that even the artificial respiration from mouth to mouth, which has been much extolled, may fail at a certain advanced period of anæsthesia; 6th, that patients may fall victims to chloroform though in an excellent state of general health; 7th, that habitual intemperance seems a counter-indication to the use of chloroform; 8th, and lastly, that accidents of the kind described above will happen with the best and most practised hands.

The next question is—Whether we can offer any suggestions as to the means of avoiding the sad results which we have just mentioned? On this point we gladly refer our readers to the excellent papers which from time to time have been published on the subject, and shall just extract from M. Bauden's memoir such advice as may be considered of value under the present circumstances :—

1. Never go, intentionally, beyond the limit of cutaneous insensibility.

2. The management of chloroform may be divided into three stages—before, during, and after the inhalations.

3. *Before: Counter-indications.*—Study the patient's constitution; find out whether there exists organic lesions of the heart or lungs; these would be a counter-indication, as are also asthma, aneurism, phthisis, ehlorosis, anæmia, chorea, &c., and predisposition to cerebral congestion.

4. The patient's mind should be perfectly calm, and the medical attendant should speak of chloroform as a boon, when carefully administered.

5. The patient should be wishing for anæsthesia, and have full confidence in his medical adviser. If he should feel any apprehension or gloomy forebodings, chloroform should be steadfastly refused.

6. Patients have in all times died from the fear or pain of operations; but the influence of *fear* is now no longer taken into account, and chloroform accused of all the mischief.

7. Chloroform must never be given but for operations of a certain importance, and patients should be fasting.

8. Attention should be paid to the debility which naturally follows serious operations and considerable loss of blood, for the organism thus loses its power of resisting the influence of anæsthetic agents.

5. The operating room should be of good dimensions, easy of ventilation, and every article necessary in case of danger should be at hand.

10. *During the Inhalation.*—Chloroform should be administered in hospitals by persons specially appointed for the purpose; and in town by practitioners who make it their exclusive occupation.

11. The quantity of chloroform should be carefully measured, about fifteen minims being taken at once.

12. The length of time during which the patient is inhaling should be counted upon the watch, as also the pulse and the number of respirations. Note should be taken of the force and frequency of the pulsations of the heart; if the latter fall *below sixty*, the inhalation should be stopped.

13. The patient should be in the recumbent position, the head slightly raised by a pillow; and should be given doses of fifteen minims, the time between them being made gradually shorter.

14. The handkerchief should be first held at a little distance, and gradually brought nearer the face, the patient being spoken to in a kind and encouraging manner.

15. The latter should be frequently asked, whilst he is being

pinched, what is done to him; and when he begins to answer with ill-humor, you pinch him, he is on the point of losing the faculty of sensation.

16. As soon as he answers no more, feeling is abolished; the handkerchief should be taken away, and the operation begun, for we should never wait until muscular resolution is complete.

17. Excitement, which often marks the first degree, is a mark that the handkerchief should be removed, far from being kept on as is generally practiced.

18. The time has now come to watch the heart and the respiration. On the slightest retardation, and if the symptoms of anæsthesia go on, or are even increased, means should be immediately taken to bring back the insensibility to the first degree.

19. When spasms of the larynx or much cough occur, if foam come to the mouth, if the pulse falls, if breathing becomes embarrassed, if there appears any mark of syncope or cerebral congestion, the inhalations should at once cease.

20. Slight struggling may be resisted, but violent excitement, and the exclamation of "I am choking," should be followed by the immediate removal of the handkerchief.

20. For long operations, the inhalations should be intermitted, and the chloroform may be resumed as soon as the patient begins to sigh or move about. Anæsthesia has in this manner been kept up for one hour.

"Laugh, if you please, and if your condition is such that you dare to; but to me an oblique tooth seems often to represent an oblique thought. Indeed, who has not remarked that such a defect will sometimes give even a sinister expression to the most benevolent idea, and rob the gentlest word of its music and meaning.

There is a story abroad, of a man whose mouth was so disfigured by the irregularity of his teeth, and the natural expression of his features was so belied by this deformity that he regretted he could not prosecute his countenance for defamation of character."—*Vide Essay on Regulation of the Teeth in News Letter for Jan.*

A new mode of transmitting articulate sounds to a great distance has been discovered. The instrument is called a Telephone; water, a well known conductor, is the agent.—*National Magazine.*

ON FILING TEETH TO RELIEVE PAIN PRODUCED BY PRESSURE IN THEIR DEVELOPMENT.

We find some excellent practical hints in an article on "*Irregular Teeth*," by C. Spence Bates, Esq., re-published in the Oct. No. of the American Journal, touching the use of the file, in relieving pain arising from pressure, in the eruption of the teeth. We call the attention of our readers to the following extracts:—

Presuming, upon the experience of many years, that if a severe pain exists in a tooth,—say the bicuspid, molars, incisors, or, as I have more frequently found to be the case, described as being between two,—and, upon careful investigation, no caries can be detected in any of the teeth upon that side of the mouth in either jaw which may lead to the conviction, that the pain experienced was sympathetic from such caries, experience and careful observation have convinced me, that the pain felt originates from an undue pressure of the teeth against each other, the exciting cause being most commonly due to the progressive development of the third molar, not so much at the time of its protrusion through the soft tissues as when it has so far advanced in its development as to bring the broadest diameter of the crown on a level with that of the teeth situated anteriorly to it. If the third molar be distorted in its position, or is such in growth, that there can be little hopes of its becoming an efficient organ,—the duties of which, if it does not fulfil,—its presence must prove worse than useless, and, therefore, it should be removed. But, as not unfrequently happens, the patient's fears, aided by the consciousness of the distant seat of pain, frustrate the surgeon's judgment, it is then that I would urge its pressure against the next being removed by a file being passed between it and the second molar, and this part of the operation to be performed previously to that of a file being passed between those teeth which occupy the seat of pain; and not unfrequently it will be found to preclude the necessity for the latter being done, and, if so, the most valuable teeth are preserved uninjured.

Another test by which the truthfulness of the existence of abnormal pressure may be diagnosed, is to be found in the increased pain being given, or its reproduction from cessation caused, by the introduction of a thin wedged-shaped instrument between either the teeth affected, or between the second and third molar. This instrument increases the pressure, and, therefore, increases the pain; and the true origin of the disease is palpably manifest.

Generally, the operation of the file in such cases, is described as far from producing so disagreeable a sensation as, under ordinary circumstances, and the completion of the operation is always instant relief. Sometimes, if the enamel be thin, or the approximal surfaces lie very parallel to each other, so that the file would have to cut its whole way to the gums coming into contact with the dentine and peridental membrane at the extremity of the enamel, or from some other cause the tooth be exceedingly sensitive; the operation, which would otherwise be very tedious and painful, may be greatly relieved by the local application of either chloroform, or strongly saturated solution of camphor in rectified spirits of wine.

Of course, here, as in all long operations of the file, the frequent application of cold water, by precluding the file and tooth from becoming hot by friction, renders the operation safer and more pleasant to both the operator and patient.

EXTRAORDINARY GEOLOGICAL DISCOVERIES.—In the course of the proceedings of the German Association for the Advancement of Science, lately held at Tübingen, Professor Karnat announced that Germany had coal enough to supply herself and all the rest of the world for the next five hundred years. The great fact elicited at the meeting was the clearing up the mystery of the fossil human teeth found in the Swabian Alps, in strata of the mammoth period, and doubts expressed as to their being human teeth, as man was not believed to have existed in the time of the mammoth. Since the meeting in 1852, a number of perfect human skulls have been found in the same locality with teeth in them, which discovery, if correctly reported, would naturally lead to the conclusion that a race of human beings was in existence contemporaneously with the mastadon, and other of the larger antediluvian animals.

The body of a man, found buried six feet in guano, on the island of Ichaboe, has been on exhibition at the City Hall, Baltimore. It is petrified and turned to a solid mass of stone, retaining all the minute outlines of a perfect specimen of humanity.—*National Magazine*.

Chloroform has been successfully employed in arresting an attack of cholera. It suspends the functions, and quiets the paroxysms of pain until the appropriate remedies can be absorbed, and the disease conquered.—*Ibid*.

THE LATE DR. J. F. FLAGG.

The recent death of Dr. Flagg, of this city, has already been recorded in the Journal. An extended notice of his life should be published, for his excellent disposition, and his long professional career, more particularly as a surgeon-dentist, are eminently deserving of it. The following extracts from a sketch of his character, by a friend and kindred spirit, are taken from a note to the editor.

“Dr. Flagg was a rare man. Added to his scientific, professional life, his social life was of high order; high-minded, eminently pure, safely conservative—accepting what *life* there was in the past, but not carrying around with him forms without substance, a body without a soul. He was open to the new, the progressive, and the light of his eye and the tone of his voice spoke of the depth within. The character of the new, its adaptation, were charms to his benevolent mind. As a reformer he was eminently consistent, and ever kind to the hardest opponent. His life was a text-book; and the many young men whom he has been permitted to influence will bear the highest testimony to his fidelity. The Dental College should have his professional life published—and we hope some able pen will immediately set about it. He has established a high-toned precedent as a surgeon-dentist for nearly forty years. Every dentist in Boston should bear him in grateful remembrance. He was the father, strictly speaking, of the School of Design for Women in this city, and the resolutions that have been passed by that Board, and the scholarship endowed, speak of its acknowledgment. Had he been a man of fortune, he would have been artistic in his life; but it gleamed out whenever an opportunity occurred, showing it was there.

“His sympathy for humanity, from his youth, has been remarkable—a cosmopolite indeed; his love for children active and ever fresh. As Superintendent of Dr. Channing’s Sunday School for years, as lecturer on Sunday Schools, &c., he is remembered with deep joy, for the scientific and religious were beautifully blended in his instructions. As his years deepened, his aspirations deepened also; and the woman-movement of this age, which is now before the public, attracted his truly generous mind. Her narrow sphere, her circumscribed position, her unfair remuneration, all attracted our departed philanthropist, and where the eye rested, it blessed; where the tone was heard, it glad-

dened. Eminently manly, he desired to see woman in freedom, that she might be womanly.

“His body grew weaker as years advanced. His intense, delicate, highly-wrought temperament took not time for rest. He heeded not a feeble body, for the soul was strong, and the desire for *use* paramount. Says a friend—‘His body weakened, his understanding faltered, and he became immortal.’ In his family relations he was a pattern to every one. His influence will never be lost. He has left behind a companion with whom he took sweet counsel for many, many years. They thought together on the great problems of life, they walked side by side in all its enjoyments, and shared in all its trials. His home was ever blessed, eminently hospitable.

“We ask some one who was acquainted with our beloved friend in his youth, and has traced his luminous life, to furnish the biography which is demanded.”—*Boston Medical and Surgical Journal*.

DENTAL LITERATURE.

During the short period in which dentistry has had a place among the useful and professional branches of business, with a rank between an art and a science, it has made surprising progress in the United States. It is not hazarding too much, we apprehend, to say that in Europe, both in the practice and the literature of modern dentistry, they fall immensely in the rear of young America. From the Baltimore College of Dentistry, a class of writers have been sent abroad, who command the admiration of scholars and of men of science, by their erudition, bold conceptions and depth of physiological research. We are not jealous of them, but proud of their distinction. In point of originality, critical observations into the anatomical relations of the human system, and industrious efforts to improve and elevate their profession, they are not surpassed by writers in any other branch of medical science.—*Boston Medical and Surgical Journal*.

SPOTTED CHILD.—It is said that a child was recently born at Barnsted, N. H. with one-half the head, including one half the forehead, black, while the counter half is white. The body is said to be white, with the exceptions of the shoulders, which are spotted.

A MAXIM FOR THE DENTIST.

BY DR. JOHN HARRIS, SALEM, O.

It is true of all professions, as well as all other kinds of business, but most especially is it true in the practice of dentistry, that "*whatever is worth doing at all is worth doing well.*" [The above maxim is worth setting in *gold*.—ED.] Could I impress this maxim in the full extent of its meaning and import upon the minds of all the members of the dental profession, I would consider it one of the grandest achievements possible toward the ultimate success of our business as a profession.

By introducing the above maxim into all his operations, the dentist would be most amply compensated by the increased amount of business which such a course would almost necessarily procure, because every well-performed operation would be the means of procuring at least half a dozen new cases, which in the event of his failure in the first, would have gone elsewhere, or neglected to have the operations performed at all.

The adoption of our maxim would be of greater moment still to the community than to the operator. It makes a vast difference to a patient whether he, after submitting to perhaps a painful operation, and paying his money for it, is really injured in point of health and comfort, as well as purse, or whether the services received from the dentist are worth ten times what they cost.

To dental surgery as a profession, it would be of inestimable value. Its direct tendency would be to elevate and to extend the sphere of its usefulness; and it would augment to a surprising degree, the demand for our services, for it is well known to every dentist that less than one-half of the work really needed in almost all sections of the country is attended to at all, owing, in a great degree, to the manner in which much of the work is done.

To the truly high-minded, conscientious man, the adoption of our maxim would afford a reward still greater, and of a character superior to any yet mentioned, namely, the consciousness of doing his duty, and being really useful to others. "*Whatever is worth doing at all is worth doing well.*"

Let me illustrate. Suppose we are called upon to fill the cavity in a carious tooth. Can it be *well* done? is frequently the first question of our patient, and undoubtedly should be one of the first ques-

tions in the mind of the operator. Our rule should be—unless it can be well done, not to do it at all. Suppose it to be a cavity in the lateral surface of an incisor tooth, difficult to approach, and much larger at the orifice than the interior of the cavity, the tooth sensitive, our patient nervous, fidgety, and impatient, the day cloudy, and he from a distance. After we have bent over our case some two hours, excavating, or *trying* to excavate, in order to secure a proper shape to retain the filling, our patient's *patience*, we perceive, is beginning to flag, and we begin to wish we had hold of an axe, a plough, a grubbing hoe, or any thing but an excavator, the question begins to present itself—Will it do? Can I make it any better? We will suppose that we concluded to make it do, just before we had the cavity quite properly prepared. With much difficulty we introduce our gold, entertaining some pretty well grounded fears that our case would not terminate as we should wish, yet hoping that the job will prove to be well done. Of one thing we feel certain—we labored hard at it. In the course of a few weeks, our patient, in carelessly using his penknife for a toothpick, displaces the filling, and when inquired of by his neighbor how he liked Mr. — as a dentist, he replies that “he can not be good at his business; for he worked a long time, plugging a little tooth in my head, for which I paid him a dollar, and it came out in a short time.” The neighbor replies—“My wife needs a set of teeth, but I guess I must go somewhere else; if Mr. — can't plug a tooth, of course he cannot make a good whole set.”

On the other hand, suppose we had persevered, and filled the tooth so that we knew it was *well* done, we might have been spared those unpleasant misgivings which annoyed us every time we thought of the case, we would have secured the neighbor's job of a whole set, and been spared the vexatious task of refilling the same tooth gratuitously.

The more experience I have, the more I am impressed with the importance of dentists doing their work well. Many of us, I have no doubt, can look back upon operations which proved to be deficient, and where we ought to have done better; but who among us ever regretted having performed an operation too well?

My attention was called to this subject by observing the manner in which a cavity was filled, in a tooth which I lately had occasion to extract, on account of periosteal inflammation. The cavity had been so well excavated, and the gold so densely compacted, that it seemed as if the filling might have remained in for a life-time, had the tooth

been otherwise healthy. I know not who the operator was, but I have very little doubt of his success, if he performs all his operations as well as he did this.

My advice to students and to dentists every where would be, not to rest satisfied short of a thorough acquaintance with the principles, as well as the best mode of practice known to the profession. The idea too prevalent, even at this day, of picking up dentistry to make some money with, is most ruinous upon the profession, as well as the community. It is almost sure to result in the disgrace and injury of the perpetrator, and it destroys that confidence, in the public mind, which is indispensable to success.—*Dental Register of the West.*

UNDERBIDDING.

The man who underbids, for the purpose of getting practice away from his neighbor, does himself a serious injury. For he who cheapens his own labor soon comes to be regarded as a *cheap* concern altogether.

In Dentistry, that is always *cheapest* which is *best*. To save teeth is the *paramount* object of the practitioner; anything necessary to save them should not be considered *dear*—anything short of this would most certainly be so.

DOES SMOKING TOBACCO PRESERVE THE TEETH?

The American Journal answers—"It is evident from these analyses, that the notion of tobacco preserving the teeth, at any rate when smoked, is an extremely erroneous one. The smoker brings in contact with his teeth, at a high temperature, acids which cannot fail to attack the phosphate of lime, which forms their principal mineral basis."

"No matter what charms one may possess, whether physical or intellectual, they are all more or less neutralized by defective or irregular teeth, which at once spoil the expression of the finest countenance and destroy the effect of the most refined manners. * * * * *

The 'human face divine' plays too important a part in society to be neglected. Personal beauty is too intimately connected with personal grace not to require much at our hands."—*Dr. T. W. Evans.*

We copy the following from the Jan. number of the Dental Register of the West. The teeth, represented by a drawing in the Register, are three incisores, and mounted on a plate, with clasps on each side extending to the second bicuspid. Making on the whole, a rough and craggy affair to travel the length of the intestinal canal :—

A PLATE OF ARTIFICIAL TEETH SWALLOWED, AND SUBSEQUENTLY DISCHARGED PER ANUM.

BY W. H. MUSSEY, M. D.

Mr. E. S., of Fulton, was awakened at midnight, of June 14th, 1853, by a distressing sensation in the throat, and discovered that a plate of three teeth, which he wore in the upper jaw, had disappeared. Successive acts of deglutition did not relieve the oppression, and Dr. E. H. Ferris was called, who employed such means as were at his command to clear the œsophagus, but emetics, &c., affording no relief, they called on me at 2 A. M., the 15th.

The patient insisted that the missing teeth were in the œsophagus, at a point corresponding to the last cervical vertebræ. In using the various œsophageal instruments, there was no difficulty in passing them below the point indicated, and that without contact with any foreign body. Instruments were employed for twenty minutes, at intervals of three or four minutes, when the question of the expediency of œsophagotomy was considered. In order to assure myself of the presence of a foreign body, I again introduced a slender instrument, having a slightly-hooked extremity. The exploratory movements caused some irritation, and a vigorous spasm of the œsophagus. The withdrawal of the instrument was followed by a more violent spasm, and the sense of obstruction was relieved: the patient exclaimed, he had "swallowed the teeth!"

The use of bulky food, as mush, rice, bread, and potatoes, was advised, and a patient waiting for developments.

June 21st.—At 8 1-2 o'clock, A. M., (six and one-third days after the accident), without any previous unpleasant symptoms, there passed the anus, attended with slight pain and a few drops of blood, the set of teeth.

To this day, the patient has not had the slightest derangement of his system.

CINCINNATI, Oct., 1853.

Correspondence.

SUCCESSFUL REPLACEMENT OF LUXATED TEETH.

LONDON, C. W., Nov. 20th, 1853.

EDITOR RECORDER :—I notice in the September number of the Recorder a case of successful replacement of a luxated tooth. As more evidence is wanted to convince the sceptic and *scientific* of the advantage of following a similar course under favorable circumstances, I will give you the results of a case in point, occurring in my own practice.

In July, 1848, Mr. L., aged seventeen, temperament sanguino-bilious, health robust, by trade a blacksmith; received a blow from a hammer upon the right central and lateral incisor, superior jaw, which drove them completely out of the mouth upon the floor of the shop. He brought them to me in his hand, and wished me to replace them. I considered it useless, as they had been out of his mouth about half an hour, but as he was anxious to have it done, and was unable to pay for new ones, I concluded to try the experiment. I found the teeth still joined together by a portion of the gum, and covered with coal dust. After washing them carefully in warm water I replaced them in their sockets without any difficulty, placing a band tightly around the head to which I attached the two ends of a ribbon that passed through his mouth and pressing firmly upon the ends of the replaced teeth. Directed a wash of tincture of myrrh. On the fourth day removed the ribbon, found the gums uniting by the first intention. Applied the ribbon as before, which was worn five days longer. There was soreness of the gums on pressure for two months after the accident. I had occasion to examine his teeth some weeks since and could discover no difference between the two teeth luxated and the corresponding ones on the left side.

I remain yours,

A. C. STONE, M. D.

HONORS TO AMERICAN DENTISTS.

Under this head the October number of the American Journal mentions that Dr. Evans of Paris, who has attained a very high reputation, and superintends more regal and imperial teeth than all other dentists on the continent of Europe, has received the following beautiful tokens of regard :—

“ Louis Napoleon has given him an elegant gold jewel-box, richly set with diamonds in cyphers and N's, and placed on a pedestal of green velvet, adorned with golden bees.

The Queen of Holland has given him a still more costly box of the same character, most richly enamelled, and studded with larger diamonds.

Add to these, an opal breast-pin from Austria; a set of agate vest buttons, ornamented with rubies and diamonds from Baden-Baden; a jeweled ring from that noble, heroic princess, the exiled Duchess of Orleans; the cross of the legion of honor from Louis Napoleon, with a host of similar trifles from various notabilities, and our readers will have an idea of what a very pleasant business it is to relieve the minor troubles of magnificoes.”

Editorial.

LUXATED TEETH SUCCESSFULLY REPLACED.

We publish in the present number of the Recorder an interesting case of successful replacement of two luxated teeth, as communicated by Dr. Stone. The power and resources of nature are most beautifully manifested in cases of this description, and the lessons which they will convey to the thoughtful and studious mind are of great significance.

The recuperative energies by which nature supplies the constant waste of material substance from the animal organism, and that mysterious, yet wonder-working power, by which separate parts become reunited, affords an extensive and delightful field for physiological research and investigation.

We think this subject demands at our hands much more consideration than it ordinarily receives, and that it is at present an inviting field for such of our profession as may have time, opportunity and inclination to pursue it.

To explore the hidden and mysterious agencies at work in the animal economy requires much patient attention, a delicate observation, and a prolonged watchfulness of the most minute and seemingly occult phenomena. But those whose laborious lives have been thus spent have always been nobly rewarded for their pains by a much closer insight into those laws by which human beings are governed, as well as more just conceptions of their being and destiny.

We really apprehend that our ideas in regard to the teeth are quite too *mechanical*. And that to this fact is to be attributed that wholesale slaughter, if we may so speak, by which so many valuable teeth have been removed to make way for artificial substitutes. The comparative ease with which this can be done supplies a powerful temptation to those of our profession who are averse to the labor of continuous and close observation. And this, together with the fact that patients are much more slow to appreciate the value of that class of dental operations which consists in *saving* their teeth, may account in some degree for the sacrilegious manner in which the natural organs are so frequently displaced by artificial ones.

Let it be forever remembered that the *first* and *primary* business of the dentist is to *save* the teeth. But when this cannot be done, then, subordinately, we are to exert our skill in supplying the loss.

But let us not decide too hastily a matter of so much importance. Let us ever bear in mind that *nature* is the loving and faithful handmaid of the patient and untiring dentist in all and every department of his legitimate practice. We remember to have read some time ago, a collection of circumstances going to show that *ossific matter* is really deposited in the cavities of teeth, where the nerve pulp has been exposed in some degree by the action of caries, or where it has been uncovered by the dentist in excavating a cavity.

Several instances of this kind were presented to the profession some time ago in an article from the pen of Dr. C. A. Harris, published in the *American Journal of Dental Science*. And we are inclined to credit the reality, from various other facts

and considerations which have from time to time passed under our own observation, as well as from certain considerations hinted above. And if the facts cited in favor of this idea, in the details of Risodontry, are to be relied on, they furnish at least a plausible argument for other important considerations.

But we are wandering from our subject, which was the replacement of luxated teeth.

Some years ago the following incident transpired in our own practice. A friend called upon us to have the crown of the right superior lateral incisor replaced upon a pivot. We proceeded to prepare the fang as usual for the artificial crown, and had inserted the tooth upon the fang, when we found it a trifle too long. Wishing to grind it down a little, we thought to remove it for this purpose. But it was too firmly inserted to be removed with the fingers, and so we took a small pair of forceps for its removal; but judge of our surprise and chagrin, when we found, that instead of the crown and pivot merely we had taken out *root* and all together.

What to do in such a case, was the question. We held in our hand the fang, with the artificial crown firmly pivoted. We at once resolved to replace it, and immediately ground down the tooth as much as was necessary, put the fang in its socket, and the crown in situ. And having secured it there dismissed our patient, with a trifling inconvenience, requesting another interview within a few days. Our friend called again as requested, free from the slightest suffering. The tooth had been a little sore, but no serious complaint was made, and no difficulty occurred in reference to the tooth afterward which has come to our knowledge.

One lesson we learned from this incident, which has not since been forgotten, viz: To remove pivots from old fangs with great care. Although the ease with which the fang came out at the time surprised us, and still seems a mystery.

EXHIBITION OF DENTISTRY AT THE NEW YORK CRYSTAL PALACE.

We notice in the official awards of the Juries of the New York Crystal Palace that Messrs. Ambler & Avery of New York have received a bronze medal for "the largest collections of specimens of mechanical dentistry."

Jones, White & Mc Curdy have received a like award "for best artificial teeth."

Abbey, Charles & Sons, Philadelphia, "for dentist's gold foil."

The above are second class premiums. Under the head of "third class premiums," to wit, "*honorable mention*," we find the following:—

Ballard & Kingsley, "for superior block work, and imitation natural teeth."

S. Branique, Brooklyn, "for regulating misplaced teeth."

H. B. Hall, Malden, Mass., "for gold filling in natural teeth."

Palmer & Brown, Fitchburg, Mass., "for a double set of teeth."

Warren Rowell, New York city, "for artificial palate."

We think no one can read these awards, in the language in which they are suffered to come before the public, without being very forcibly struck with the dubious character of the compliment. For instance—a bronze medal is awarded "for the largest collections of specimens of mechanical dentistry." Is not this, to say the least, very equivocal commendation? Why did they not give them a *leather* medal, and done with it?

Jones, White & Mc Curdy's is less equivocal, and doubtless complimentary.

Palmer & Brown have "honorable mention" "for a double set of teeth," and Warren Rowell "for artificial palate."

But it seems to us that the whole is a complete farce. We had much rather, had we been one of the exhibitors, that the Jury had passed us by in dignified silence than to notice the matter in a manner so unsatisfactory.

We are informed by one capable of judging, that the work exhibited by Ambler & Avery was of *superior* workmanship, and that there was a greater variety than in any other case, "and that a young dentist who should visit the exhibition to examine the work for the purpose of improving his own, would linger longer and see more to admire in this case than in any other."

We are also informed that the teeth in this case were manufactured by Dr. D. H. Porter, whose ability is well known, and yet, a *bronze* medal was awarded "for the *largest* collection."

It seems to us that if these exhibitions are of sufficient importance to have an able and distinguished Jury appointed upon them from the profession, they are of sufficient importance to receive a fair and candid award.

Individually, we have a poor opinion of such exhibitions. But as long as custom sanctions the practice, and as long as dentists, supposed and believed to be competent to examine and report upon their claims, are willing to receive such appointments, we contend that the exhibitors should receive impartial and candid treatment at their hands.

But where is the advantage, either to the profession or to the individual, to say that he had the "largest" collection, or that he had simply exhibited "a double set of teeth," or an "artificial palate"?

We do not wish to be severe in our strictures upon the Jury in this case, they being men of eminence in the profession, as there may be some circumstances not yet known that may set the matter in another light. But as at present advised, we confess our mortification over the whole affair.

INAUGURAL THESIS ON THE TREATMENT OF EXPOSED DENTAL PULP, PREPARATORY TO FILLING, &c., by J. D. WHITE, M. D., D. D. S.

We acknowledge our indebtedness to the author for a copy of the above named paper. It was written for the degree of Doctor of Medicine, session of 1843-4, in the Jefferson Medical College, Philadelphia, but contains much that is valuable and suggestive at the present time. And no dentist can read it carefully without advantage. After a very careful analysis of the different modes of treating the exposed dental pulp, recommended by different writers, the author comes to the conclusion that *arsenious acid*, *kreasote* and *morphia* are the agents by which the dental pulp are most easily and safely destroyed, where it is necessary to accomplish that object, and gives the following formula:—

R. Arsenious acid, gr. xxx.
Morphiæ sulphas, gr. xx.
Kreasote, q. s. Misco.

Put the arsenious acid and kreasote into a glazed mortar, and grind them till the arsenic becomes impalpable, (adding kreasote to keep the mass of about the consistency of cream;) then add the sulphate of morphia and mix it well, still adding kreasote; it will dissolve in the paste. Prepared in this way, the arsenic is in

a better condition to unite speedily with the pulp than the mere dry powder of arsenic, on account of the kreasote holding a large quantity of it in solution, and it becomes more minutely divided. Great care must be taken to cleanse out the external cavity of the tooth, so as to place the paste in immediate contact with the pulp. A pledget of cotton, about the size of a small pin's head, steeped in the paste, is sufficient. If the pulp bleed when the cavity is cleansed, we must wait till the bleeding subsides before we apply the paste: the cavity may then be filled with cotton, and left in from ten to twenty hours. If it be in the tooth of a young patient, the bone will, perhaps, absorb a sufficient quantity of the arsenious acid to inflame the alveolo-dental membranes, and of course it should be removed in such cases in a shorter time than it could be left with safety in the case of an older patient, or a dense and opaque tooth."

The author's reasons for preferring this form of using arsenious acid are:—

"1st. It destroys the pulp in a shorter time, and without pain, in more cases than in any other form in which I have used it. 2nd. It less frequently causes inflammation of the external membranes than when applied alone; and 3d. It produces a more extensive and perfect slough of the pulp, and of course I take out the pulp far down in the roots; a matter which should never be neglected, for reasons which I have given in another part of this paper, and on which depends, in most cases, the success and permanency of the operation of plugging."

The author's remarks on this point are of so much interest, that had we space we should publish them entire.

For many years we were decidedly opposed to the use of arsenic for the destruction of the nerve pulp, having read, and seen some of the consequences of its use; or, rather we might now say, its abuse. With these feelings we attended a meeting of the American Society of Dental Surgeons some three or four years since, when the subject came up for discussion. And after hearing Dr. White set forth the claims of the above mentioned compound, in a very clear and lucid manner, which at the time made a most favorable impression upon our mind, we resolved on our return home, to give it a trial. Suffice it to say, that we have used it ever since, in cases requiring it, and with uniform success. And we thank Dr. White for bringing the matter afresh before the profession, and advocating its claims with such signal ability.

OUR FIRST NUMBER.

We trust our readers will not regard the *first* as a *specimen* number of the Recorder. We were compelled from stress of circumstances to go to press as speedily as possible, and under disadvantageous circumstances, owing to the fact, that we were greatly behind hand at the time of *taking* the publication and editorial management of the Recorder into our own hands, and were delayed until near the 1st of February for the want of certain matters, indispensable to the issue. We feel a little chagrined that we were compelled to send out our first number without sufficient time to mature our arrangements, or to correct the imperfect impressions of the sheets of which the January number was composed.

We are not a *printer*, and may not always be able to control the *mechanical* arrangements of our journal, yet we confidently expect that after we are once fairly started we shall obviate all those difficulties incident to a new enterprize. Patience, therefore, kind reader, and see if we do not do better in future.

To EXCHANGES.—Please direct our exchanges to the editor, at Norwalk, Ct.

DENTAL ETIQUETTE.

A lady requires the professional services of a dentist. It was the first occasion of the kind in her life. Feeling the importance of saving her teeth from destruction, she hastens to the good city of Baltimore. She enquires for an eminent dentist, and is directed to Dr. C. A. Harris. She calls, but finds him absent.

She seeks the residence of another, who examines the teeth, and makes an appointment for the next day, adding, "It is fortunate you came to *me*—not another dentist in the city could save those teeth; no other understands the business. You see I have my own peculiar method, and though these quacks which you may meet with every where, hanging out their impertinent signs, may have temerity enough to attempt any thing, believe me, there is not one amongst them that knows any thing about the teeth."

She is somewhat startled, but congratulates herself in having stumbled upon the right man. That evening, however, in a little social party, she meets with another member of the dental fraternity, to whom she innocently mentions the adventures of the morning.

"What!" says Dr. No. 2, "You are not going to let that incorrigible ignoramus operate upon your teeth? Why, he don't understand the first rudiments of his business."

"Oh," she replied, "he has his own peculiar method," &c.

"His own peculiar *humbug*, Miss; the unconscionable donkey. A pretty sight you'll be, after you leave his hands!" And

"There stood the rogue and roared,
Unmasked and unencored,"

whilst she was ready to cry with vexation.

She leaves No. 2 for No. 3, since "he declared, that it was universally acknowledged by every person capable of forming an opinion on the matter, that *he* alone understood dentistry in all its branches."

The next day, prior to the hour of engagement with No. 3, she meets a friend in the street, who it happened, was on the way to her dentist, and on solicitation accompanied her thither, not intending to break her engagement with No. 3. But her friend, as soon as they were ushered into the presence of No. 4, thought proper to mention it to him.

The dentist groaned, and exclaimed "Poor child! poor child! poor human nature! how constantly it is imposed upon. Oh, it is sad to think how depraved that heart must be," &c. "Why, my dear child, that fellow will ruin your teeth to a certainty. What does he know of dentistry? Plugging teeth is an art and a *mystery*, and it takes nothing less than inborn natural genius to comprehend it. Now believe me, I have no ill feeling toward Dr. ———," &c., &c.

Dr. No. 4 shows a specimen of the work of Dr. No. 3, which he declares to be an unusually good specimen, which the lady thought must have been the identical teeth worn by Dr. Parkman, and which had roasted in the furnace a week. Of course she loses all confidence in No. 3.

But Dr. No. 4 had so far overacted his part as not to inspire her confidence. So she determined to try again. But every where she went she had the same mutual accusations, the same charges of ignorance, selfishness and cupidity, until she returned home perfectly amazed and disgusted, not knowing what to do or whom to trust.

Such is the picture that a lady correspondent of the American Journal draws of the Dental profession in Baltimore. But will not almost every reader of the Re-

order recognize the sketch, as faithful, to some extent, to the circumstances of his own vicinity? And is it not a burning reproach to the profession that it is so? We have no idea that Baltimore is peculiar in this respect, and although the picture may be somewhat overdrawn, there is enough of truth to cause an honorable mind to blush with shame.

RISODONTROPY.

Dr. J. D. White of Philadelphia, Editor of the Dental News Letter, breaks ground against the operation of drilling teeth, otherwise called "*Risodontropy*," alias "Hullihen operation."

He opposes the plan of perforating the gum and alveolus, and remarks, that every case which has fallen under his observation, "has, in a short time after, assumed the same condition as though it had been drilled under the free margin of the gum at first." * * * * "Again, in perforating below the margin of the gum, a number of membranes, differing very much in character, are wounded: first, the mucous membrane; second, the alveolo-dental membrane; third, the dentine and the internal membrane of the pulp cavity. Now this makes a very severe wound, so far as the nature of the tissues of the parts are concerned, and to restore it to a reasonable state of health, some claim for the process that ossification of the pulp takes place outside of the point at which the pulp cavity is drilled, though the tooth also becomes filled up with ossic matter, and in this way the life of the tooth is saved, and the surrounding parts become whole. We see cases of drilled teeth every day, and have as yet seen no traces of such changes having taken place, nor can we at present regard the matter as deserving serious reflection."

Dr. White denies that this operation is founded on *true surgical principles*,—"This is not treating the wound first made by manual operation, but by making another. Now, where is the surgical principle that is to promote the healing of the second wound?"

Alluding to the introduction of this new mode of dental practice, the Doctor speaks as follows:—

"This modern method of operating was marshalled before the profession with a strong advance and rear guard, as the ultimatum of scientific treatment of the dental pulp, only lacking for its perfection a more extended experience, and care in its application. With due deference to all who are engaged in its practice, we would assert, that so far as we have been able to observe the results of the method, it is the most pernicious that has yet been devised. There are few cases in which it will apply as a *durable* operation for preserving a tooth, even if it had strong claims in favor of placing a tooth in a comfortable condition. It cannot be applied in deciduous teeth, on account of the pain it excites in its performance," &c.

Thus boldly drives the Professor against this new mode of practice which has produced such a stir in the profession, and so much controversy as to whom belonged the honor of its discovery and introduction.

Will Drs. Hullihen, Conc and Miller come to its rescue? We shall see.

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SHAVING THE BEARD.

The more I reflect upon the mysteries of neurology and animal chemistry, the more confident I am that, while we are the least suspecting it, trifling errors in our daily life are producing important effects upon our corporeal systems; and I declare it as my deliberate conviction that the habit, which may almost be styled American, of using the razor upon the face, is sufficient to cause a large proportion of the lamentable evils which affect the human race in this country.

It appears by experiment that the beard, if shaved, grows from four to five times faster than if unshorn. In this calculation an item is omitted which it is difficult to estimate, i. e., the stimulus given the beard by the first applications of the razor in adolescence, the experiments being made upon beards after they have acquired an unnaturally rapid growth. The effect of this early stimulus may be fairly counted at double the natural growth; then reckoning the difference in size and weight of the fibre, which is treble, and we find the frightful truth to be that we raise thirty times the natural quantity of beard! Thus it is evident that the true beard is exhausted at a very early age, after which the system is forced to supply a substitute. Now nature will not submit with impunity to extraordinary demands upon her vigor, and that which requires her to produce in a life time thirty times as much beard as she was first inclined to, must certainly be considered as such. She is fatigued in proportion to the effort, let the particular kind be what it may, or let it be as moderate as it may; and though her recuperative powers are great, she insists upon having repose, even when working at a rate chosen by herself. If that repose is denied her, she takes her revenge by breaking down the mechanism.—Who, then, can estimate the revenge she will take for being compelled to labor without rest under an uncompromising task-master!

2d. The chemical laboratory of man furnishes in just proportion the ingredients required to deposit in suitable quantity the bones, skin, hair, nails, &c., and it is obvious that a superstraining of those chemical elements which enter into the composition of the beard must deprive of their just due all the other tissues which are wholly or in part composed of the same elements. Such injustice to other structures they must inevitably feel, and the entire system must suffer from a disturbance of the balance of power which was requisite to a healthy action of its various parts.

3d. The proper calorification of the body is one of the most essential conditions of its healthy action; and the non-conducting properties of the beard ought to be a caution against trifling with so powerful an agent, more especially when one considers its intimate connection with the calorific organs of the brain and with the respiratory organs. The popular notion, that, as women are beardless, men may be or not as they please, is founded in misapprehension. A man and a woman form one specimen of the *genus homo*, and from a physiological point of view must be considered one and the same. The absence of beard in woman is countervailed by some other differences in her constitution, which it would be needless to point out even if we knew them. It suffices to know that nature is perfect in her work.

4th. The errors of the father shall be visited upon the children unto the third and fourth generation, the tree being known by its fruit, for a corrupt tree cannot bring forth good fruit; which, simplified, is, "like begets like." No person who feels the force of this law in all its fulness, can expect to transmit to his posterity vigorous pulmonary organs, if he has done the best he could to ruin his own. Daughters and sons are by nature equally their father's heirs, and if consumption of the respiratory organs spares more men than women, the out-door exercise of men must in part account for the difference.

The mania which has ever possessed man for disfiguring himself is astonishing. Not satisfied with God's most perfect handiwork, different tribes and nations variously undertake to beautify it, thus fairly making themselves laughing stocks for each other; but it is to be hoped that the "pioneers of civilization" will come out from the category of those who tattoo the skin, flatten the skull, shave the crown, taper the waist, stint the feet, circumsise, and slit their ears and noses.

It is with difficulty that old habits are renounced, even when one is convinced that life can be prolonged and made happier thereby; but

It is a question for young men seriously to consider, whether, on starting in life they will addict themselves to a habit which at once wastes the time, sours the temper, is against nature, and consequently involves their health and that of their offspring.

Nature has made her terms with us how we may enjoy our daily existence and lengthen out our lives; these terms are—to know her laws and not infringe them.—*Boston Medical & Surgical Journal.*

DENTISTRY IN FRANCE.

In France, in sober minded England, as unhappily in America, the interests of our profession have been seriously compromised from its sacred domains having been invaded by hordes of illiterate and unprincipled charlatans. Not a few people, imposed on by such persons, look upon our science as hardly deserving the name; and the proportion of quacks is so great, compared with the number of scientific, conscientious men, that the very name of dentist is with many a name, if not of dishonor, at least of discredit. By many, in fact, the science of dentistry would be described as “the knack of pulling out and putting in teeth,” and a man who has acquired a little skill in these operations, and, by dint of lead and brass, can bungle through certain others, passes current as a master of the art. I am inclined to think this is peculiarly so in France. The number of self-celebrated dentists there, is enormous—composing a perfect Legion of *Dis-Honor*. You see their flaming advertisements, bristling with the teeth of their victims—like Indian wigwams hung with the scalps of the enemy—everywhere.

On the broad, beautiful Boulevards, in all the splendid arcades and squares, are displayed showy frames, exhibiting full sets of artificial teeth, opening and shutting as teeth never opened and shut before, from morning to night; and grinning at the green and gullible public with a pertinacity and impudence only too characteristic of their inventors.

Dentists' saloons, showy as shaving saloons, (and in some respects not unlike them,) are rigged on wheels and dragged through the streets by gaily caparisoned horses, while the spirited proprietor sits in state by the side of the driver, and, as the vehicle stops from time to time, harangues the multitude very much after the fashion of our equally enterprising, but I trust more scrupulous, Connecticut ped-

lars. The harangue finished, the "wooden nutmegs"—I beg pardon,—the patent teeth duly exhibited, and the public, without distinction, being invited to walk in, one of the hired *attaches* of the establishment, with his excruciating face half concealed by a dirty handkerchief, enters the saloon, and in a moment after returns, grinning like a clown, and informing the bystanders that whereas five minutes ago he had the horriddest toothache in the world, he is now entirely cured and is the happiest man alive. Then one of his colleagues enters, and after a few moments of awful silence, makes his exit, swearing that meanwhile his impudent jaws have been circled with thirty-two as fine teeth as ever cracked a nut. These decoy ducks having "acted well their part," the success of the trick is seen by the fact that crowds of real sufferers now enter the gilded cage, (perhaps I should say the lion's mouth) whence, it is needless to add, they are glad to emerge on any terms.

There are other tricks of the trade, too well known to every one who has visited France, and almost too ridiculous to mention. The latest appears in the form of a book, calling upon every man to pull and plug his own teeth, as if every man who attempted such a thing were not sure to have a fool for a dentist.—*Dental News Letter*.

EXTRACTS FROM A THESIS ON THE RESTORATION OF HEARING BY THE INSERTION OF ARTIFICIAL TEETH.

BY JAS. S. GILLIAMS, M. D., D. D. S.

Eustachian Tube.—The principal object, for the fulfilment of which this tube exists, wherever there is a tympanum, appears to be the maintenance of the equilibrium between the air within the tympanum, and the external air, so as to prevent inordinate tension of the membrane tympani, which would be the case if too great or too little pressure was on either side, and the effect of which would be imperfection of hearing. It is not the increased or the diminished density of the air, either side of the membrane which is necessarily produced and which always interferes with the integrity of hearing. It is on this principle that the following cases may be explained :

In the year 1849, I received a message from Mrs. M., through the servant, with a set of teeth that required repairing, with the request that I would have them attended to as soon as possible, as Mrs. M.

could not hear when without the teeth. This circumstance first attracted my attention, and when at a subsequent time she came to the office, I made more particular examination and found a great difference in her hearing in regard to what I said to her when her teeth were out, and when her teeth were in her mouth. About a year after, a lady applied for the insertion of an entire set, she had never worn artificial teeth and her hearing was so much impaired that I was obliged to touch her chin and bellow in her ear when it was necessary that the mouth should be opened. When the teeth were inserted and the hand glass presented to her with the request that she should look at them, she suddenly exclaimed, "I hear every thing you say, I can hear you perfectly well." The pleasure of thus recovering the power of hearing was so great, that she declared this acquisition to be in her estimation of a great deal more importance to her than the ordinary advantages of the teeth. The power of hearing continued and she viewed the improvement in speaking, chewing, and the appearance of the mouth of secondary consideration. I have since witnessed the same phenomenon partially produced in several other cases; one lady said she could not "listen without her artificial teeth." In two other cases something of the same kind was produced, but not in so marked a degree. These observations have led me to inquire whether any change could be induced in the orifice of eustachian tube by the excessive approximation of the jaws, such as to close or cover the orifice, or in any way impede the transmission of air through it. If we suppose at the same time, that deafness arose from want of balance between the air within the tympanum and that of the atmosphere, or that external deafness prevailed from causes affecting the membrane tympani, or from obstructions of the external meatus whilst the sensibility of the nerve was preserved, the causes of deafness might be more clearly understood.

NOTE.—I have been trying to make more partial examinations, and obtained several heads for that purpose, but they were either too dry or injected with chloride of zinc.

EXCISION OF THE LOWER JAW.—It is stated that the entire excision of the lower jaw was performed upon a girl 11 years old, at Oswego, N. Y., in 1849, and the patient is still alive and in good health.

A CHOICE SPECIMEN.

PROF. TAYLOR.—*Dear Sir*: We, of the professional brotherhood, who dwell deep within the wilds of the far South and West, would have a lonely time in our travels from one village to another, in our circuit, if we did not occasionally meet with "*cha-rac-ters*" serving for amusement and instruction.

Crossing the Choctawhatchie river, in one of my late "*towers*," I was irresistibly drawn into conversation with the ferryman; and very soon he had "pumped" from me my name, residence, and that I was a "*tooth doctor*." "Tooth doctor, aha! I've got mighty good teeth, never had tooth-ache but once in my life, couldn't get it drawd. I'll tell you what will cure toothache *certing*, cured mine; just killed it dead as a hammer, brought it right out." "You see I had the toothache *powerful*, I didn't know what to do." "Somebody told me to put rattlesnake's grease in it, so I took a piece of cotton, and sobbed it in rattlesnake's grease, and put it in the hollow, and it cured it. Tell you sir its a mighty sure remedy, but it is *nasseous* for true, and a man must have the toothache powerful bad, must be in a great rack of misery, and have a strong stomach, before he can go it."

Place this "grease" among your odontalgic remedies, and let the juniors of the profession, find in the following the reason their fillings sometimes fall out, and cease to be desponding and unhappy.

There is hidden away in these wild woods, a *dentist*, who, by dint of low price and hard persuasion, got a few teeth submitted to his manipulations. With great dispatch he patch the faulty places, and promised his *ears* if the filling came out. But alas, for human calculations; only a short time passed, and the fillings were missing and the ears demanded.

"Stop, *stop*! haven't your tooth been sore? Haven't you had a cold?" Yes, b'lieve I have. "Well then I'm not responsible."—You see, should you take cold, and the teeth are sore—they *swell*, and the *hole* gets larger than the plug; there's nothing to hold it in, and its bound to come out." K.

His patients were edified and satisfied.

P. S. The "specimen" who furnish the above fact, says he has read Harris' "*s rgal dentry*."—*Dental Register of the West*.

PROFESSIONAL SUCCESS.

The following remarks, says the Editor of the Dental Newsletter, will apply with equal force to the profession of dentistry :—

There is a singular difference in medical men in respect to their ability to inspire confidence, which is the first step in obtaining business. Some, with an immensity of learning, have a cold exterior and a forbidding aspect that prevents them from having any hold upon the public regards. They cannot succeed, on account of the ungraciousness of their manners. Others, without any solid acquirements, attain a success that astonishes their superiors, who cannot forbear wondering that such superficial attainments should have a currency among the intelligent. The secret of all this, is, a kind way of saying and doing things. How true it is, that a spoonful of honey will catch more flies than a barrel of vinegar. We have known many excellent, worthy physicians, of unquestionable talents, who dragged through life in poverty and disappointment, without ever convincing the community of their claims. They frightened off those who might have patronized them in the beginning, by refusing to participate in neighborhood courtesies and civilities which are so necessary in becoming one of the people.

A ready tact in detecting quickly the symptoms of a case gives eclat to a physician. Patients are not partial to a tedious examination by percussion, a stethoscope, and a pair of ears all over their bodies at every visit. Many a good and conscientious practitioner has lost some of his best business, by over acting in this matter.

A finished medical education is lost upon many practitioners, who abandon the medical ranks in disgust, out of patience with the world, when the real cause of their poor progress is in themselves. A happy disposition and a corresponding external deportment is a better inheritance than an estate. A sycophantic smile, or an obsequious deference to mental inferiors, just because they represent a monied influence that may be turned to profitable account, is despicable in all, but especially in a physician. A medical hypocrite soon finds his true level. A fair, open, cordial deportment should characterize a practitioner of medicine. He must be a man among men—entering into their interests, and sympathizing both in their prosperity and adversity.

FILLING ROOTS OF TEETH.

The American Journal of Dental Science gives the following as the method of Dr. F. H. Badger of New Orleans:—

The pulp of the tooth, if remaining, is first destroyed with arsenious acid and creosote, applied on the inside of a small cap made of sheet lead, with a small perforation in the centre, through which the sharp end of a small wire projecting from the end of a canula or tube is passed, and by means of which, it is placed upon the exposed pulp. The tube is now moved on the wire until the end comes in contact with the convex part of the cap, when the stylet or wire is withdrawn and both removed without displacing or moving from its proper adjustment the leaden cap. This done, the external opening in the crown of the tooth is filled in the usual way with softened wax, and the application permitted to remain sufficiently long to destroy the vitality of the entire pulp.

The wax and cap containing the arsenious acid, having been taken from the tooth and the pulp removed to the extremity of the root, the external opening, if necessary, is now enlarged and the central chamber in the tooth made as easy of access as possible. In short, the tooth being properly prepared for the reception of the filling, a piece of gold foil, of about two inches in length, and a quarter or a half inch in width at one end and coming to a point at the other, is rolled into as solid a wire as possible. The length of the canal in the root is now ascertained, and if the opening at its extremity is large enough to permit the passage of the point of the wire, the latter is clipped off with a pair of scissors. Several of these sharp cylinders or wires made of foil in the manner as just described, should be prepared previously to commencing the operation of filling, and being thus provided with them, the canal in the root is made dry, by introducing a slender pointed probe made of whalebone, silver or untempered steel, having a few straight fibres of raw cotton wound around it. When the moisture has been completely absorbed, the large end of one of the cylinders is grasped with a pair of properly shaped tweezers. With this instrument the small end is introduced into the canal of the root, and is readily carried up to the extremity of the root. This done, a slim probe, tapering to a point, made of whalebone, or untempered steel, is forced up between the gold and the wall of one side of the canal of the root, firmly compressing the cylinder. The probe is then withdrawn and another and another cylinder introduced, each one in

like manner compressed, the canal in the root becoming shorter and shorter, until it is completely filled.

Having filled the root, the remainder of the operation is divided into two parts. The first, consists in filling the central chamber in the crown, and the second and last, in filling the external opening.

AMPUTATION OF THE TONGUE—SPEECH PRESERVED.

BY M. MAISONNEUVE OF PARIS.

Dr. J., corresponding member of the Academy of Medicine, and President of the Committee of Vaccination, had been for several years in the habit of sending to the departments liquid vaccine-matter, preserved in small tubes. The matter was put up by himself, and, as a consequence, he had been in the habit of holding a certain number of glass tubes in his mouth. The sharp points of the glass induced punctures on the tongue, frequently followed by small pimples. The pimples would generally disappear in a few days; but, in time, an induration supervened, and became, by its persistence, the origin of a grave disease. In fact, tormented by the persistence of the induration, Mr. J. endeavored to remove it by cauterization. He first employed nitrate of silver, then acid nitrate of mercury; but this medication aggravated the disease, instead of arresting its progress. Epidemic tubercles were developed all over the surface of the tongue, and subsequently a profound ulceration invaded the central part of the organ. By the advice of friends, he submitted to the energetic cauterization of red hot iron, an operation which had the effect of giving still greater activity to the disease. All the anterior part of the tongue, nearly as far as the calciform papillæ, became the seat of a considerable ulceration, of one inch in length; while at the same time, the central ulcer was making rapid progress. To these symptoms were soon added lancinating pains, which entirely deprived the patient of rest. He consulted Dr. Ricord, who submitted him to the iodite of pottassium. Despite this treatment, the disease gained daily; the tongue, enormously tumefied, ended by obstructing the buccal cavity; the efflux of saliva was continuous; speech became impossible, and the patient was compelled to restrict himself to liquid aliments. It was in these conditions, that, by the advice of Dr. Ricord, the patient came and consulted me. In the presence of a disease of such gravity,

against which the most rational medication had been found powerless, I believed myself justified in proposing amputation as the only resource. It was performed on the 24th of August, at Dr. Pinel's *Maison de Sante*, in the presence of Drs. Larrey, Ricord, Richard, Dumolet, Lauglebert and Pinel. The patient having been submitted to chloroform, I first incised, on the median line, the lower lip and the soft parts of the chin. Next, with a chain saw, I made the section of the lower jaw; the two branches of which being thus separated, I was enabled to grasp the tongue, and draw it out. By a rapid dissection, the diseased organ was then separated from the healthy parts, as far as beyond its anterior half, and over an extent of one inch. The sublingual gland* had also to be sacrificed. Ligatures were applied upon the important vessels, so as effectually to prevent hemorrhage. After this operation, the branches of the jaw were brought together, and maintained in contact by means of thread rolled round the incisor and canine teeth;† the ligatures placed upon the vessels were directed under the chin, under the inferior angle of the chin; and the edges of the division were united by means of the twisted suture. Notwithstanding the extreme gravity of this operation, no accident was manifested. The union of the external parts was effected by first indentation; the enormous loss of substance was rapidly repaired; the bones became consolidated; and, what is truly remarkable, forty days after the operation, the patient had recovered his speech, and at the same time, the faculty of seizing and masticating his food. Anatomical examinations demonstrate that the affection belonged to the class of epithelial cancrs. It may therefore be hoped that there will be no relapse.—*American Medical Monthly*.

TOOTH-DRAWING.

Dr. C. T. Cushman publishes in the *Dental Register*, some difficult cases of extraction of teeth. One was that of a man-servant who had been under treatment for months for what his physician termed an "unmanageable head-ache," and finally suspecting that the left inferior dens. sap., which was much decayed, was the cause of the pain in the head, attempted to extract it. but broke it off below the level of the gum. Dr. C. tried Harris' forceps, slender root forceps,

* Are there not two sublingual glands?—*Nashville Journal*.

† Were there no teeth injured by the saw?—*Ib.*

key and elevators, without success. The punch was then resorted to, and the *outer* side being the most prominent portion of the fractured roots, he covered the fingers of the left hand with a napkin, placed them within the mouth, clasped the left side of the inferior jaw, while the thumb placed along the margin of the gum served as a fulcrum. The punch, firmly grasped in the right hand, was then forced down as low as possible between the gum and the root on the outside, the handle depressed, then rising and pushing it toward the centre of the mouth, the roots instantly gave way. The roots were long, and periosteum extensively ulcerated, doubtless causing the long continued head-ache.

By this method of thus using the punch, Dr. C. has rarely failed in such cases, and never found it necessary to cut away the alveolus.

CASE VIII was "*a stumper for the dentist.*" This was an inferior dens. sap., growing in such a position as to be completely dovetailed behind the second molar. Two persons had tried to extract this tooth without success. The tooth was firm, and no attempt was made by Dr. C. to extract it, and thinks that the *physic forceps* would be the best instrument in such a case. The tooth would have to be forced back at least a line to clear the second molar.*

MATERNAL INFLUENCE ON THE FŒTUS, AS EXHIBITED IN A CAT.

DR. NELSON—*Dear Sir* :—During a recent visit at Hillsborough, in this State, I became acquainted with the following circumstances. The case is a very singular one, and if you think it will interest your readers, you are at liberty to publish it in your *Lancet* :

Mr. David Kimball was visited at his house by a little girl who had a club-foot, and who was very fond of cats. Mr. K. had a cat, who, up to this time, was pleased to be handled by any one; but from the first, on seeing this child, seemed to be much frightened, and especially so on account of her foot; for on seeing it, she would make the most desperate efforts to go away and hide. Some four weeks, or

* In a similar case in our practice not long since, we cut freely around the crown, made a free lateral incision, and found no difficulty in removing the tooth with the root-forceps. We seized the tooth in such a manner as to cause it to glide over the posterior surface of the second molar, elevating the crown at the same time that the usual motion was applied. A number of attempts had been made to extract this tooth by a dentist in the country without success—*American Journal*.

thereabout, after the visit of this girl, the cat had a litter of four kittens; and every one of the four had each *one foot* turned in precisely like the girl, and it was the *same foot in each one*.

Respectfully yours, JAS. M. HARTWELL.

HAMPTON, N. H., Nov. 27, 1853.

[The above case is highly interesting in a physiological point of view, while it is unique in its character. Very many are inclined to disbelieve that the mind of the mother can exert any influence whatever on the foetus; and that the various singular appearances, or deformities presented by the new-born infant, are traceable to other causes than impressions made upon the mother's mind and transmitted the foetus *in utero*. Now what will they think of puss' fright at the club-footed little girl, and then giving birth to four kittens, each with the deformity so well marked? The Rev. Mr. Hartwell will accept our thanks for his communication.—*Nelson's American Lancet*.

NEW FASHIONED NEEDLE CASE.

About the 1st of May, Miss Mary H., aged 19, accidentally and at different times plunged two needles into her arm, which I extracted. About a week afterwards she came to my office with her arm enormously swollen. I examined it without being able to discern the cause. She came the third time, May 22^d, when four needles were detected at the upper edge of the swelling, very deep in the flesh, which I was obliged to cut, before getting them. 25th, four were taken. 29th, fourteen were found—some of these worked up to the shoulder. 30th, seventeen. 31st, took one from the arm and five from the left breast. I found needles from time to time till sometime in July, amounting in all to 132—from a small cambric up to a large sized darning needle. Some of them were very rusty, and others quite black; some lay very deep under the muscles so that it was necessary to cut to the bone to get them, while others were so near the surface that but a slight incision was necessary. Nearly all were taken from separate places. Thirty-five were found in the left breast, (if I remember correctly,) thirteen in the right breast, four in the left side, the rest in the left arm and shoulder.

Every suggestion that imagination and credulity could invent has been circulated, as to the cause of this really singular phenomenon. It is supposed by some, that after getting in the first, she became so

excited that she put the rest of them in herself, in a state of somnambulism. She is a respectable young lady, of a respectable family, and affirms that she "certainly knows nothing about it." The family had a large box of needles whence she may have derived her supply.

After the first forty or fifty, it was evident from the appearance of the needles that they were placed there at intervals, a few at a time. The inflammation at one time was so great, it was feared she would lose her arm. It is well now, with the exception of being weak and somewhat crooked. These are the facts as far as I recollect. It would be a great satisfaction to know exactly how they came there.—*Iowa Medical Journal.*

OPERATION FOR EXCISION OF THE DENTAL BRANCH OF THE INFERIOR MAXILLARY NERVE IN OBSTINATE TIC DOULEUREUX.—M. Sedillot, of Strasburg, has just operated upon a woman in the following manner:—A slightly convex incision was made along the inferior border of the lower maxillia from the canine tooth to the interior border of the masseter. The soft parts were then divided to the bone, and a flap raised toward the upper part of the face, from over the dental foramen, whence the dental branch was seen emerging in thick and voluminous ramifications. A small trephine was then applied one inch posteriorly to this foramen, and a circular piece of bone, about two lines thick, removed. By breaking up a few lamellæ of bone the dental nerve was laid bare, and cut at the posterior edge of the osseous aperture. Another section of the same nerve was then made two-thirds of an inch anterior to the dental foramen, and the operator then seized with two forceps the anterior and posterior extremities of the piece of nerve lying between the locality of the two sections. By pulling it backwards and forwards, its cellular connections were weakened, and the portion of nerve then extracted altogether by its anterior extremity. This isolated piece of nerve was about one inch and a quarter long, round, of an opaline color, and presented no striking vascularity. The flap was allowed to fall down again, and the report mentions that the patient said on the eighth day that she suffered no more pain, and on the sixteenth the wound was quite healed, the cicatrix being hardly visible. It may be inferred from the cases published in this Journal, that there will in all probability be a recurrence of the pain.—*London Lancet.*

Miscellanea.

SCIENCE is the only true and proper basis of ART.

Art is *demonstrative Science*, not demonstrative in the loose acceptance of the term, but demonstration *grounded* upon real and positive certainties—*grounded* upon *real, substantial* truths—upon *unerring principles* applied to art, and found to stand the actual test of practice.

What, it may here be asked, is dental science? What are its foundations? What its limits? What its requirements, necessary to be fulfilled before one is competent to undertake and practice the dental art?

We reply, that *Medical Science, Chemical Science* and *Mechanical Science* constitute the *fundamental* and *essential elements of Dental Science*. These are the foundations necessary to be laid before you can expect to practice dentistry safely, successfully and conscientiously.

PHOTOPHOBIA.—Photophobia, is a dread of light, as its name implies, and consists of excessive, and the most painful sensibility to the impressions of light.

The first branch of opthalmic division of the fifth pair of nerves goes to the eye, and readily explains the medium of production of this affection when the teeth are the cause.

The American Journal of Medical Science records a most interesting case of this disease, where, after every kind of treatment had been tried, nothing but the extraction of a few teeth did any good. And this, the record informs us, most promptly and effectually cured the affection; showing that the teeth were in fault, and that they were the cause of all the mischief. This case teaches a most useful lesson to physicians, who are so prone to overlook or even to suspect the teeth as being the sources of mischief, beyond the mouth.

OTITIS, HYDROCEPHALUS and DYSPEPSIA, when originating from disease of the teeth, may be explained to be produced through the medium of the fifth, associating with the eighth and sympathetic nerves.—*Prof. R. W. Handy.*

ARSENIC-EATERS.—The Styrean peasants, says Prof Johnson, eat arsenic as the Chinese eat opium. They eat it for two specific purposes—to acquire plumpness and freshness of complexion, and to improve their “wind,” so as to enable them to climb long and steep mountains without difficulty of breathing. And, strange to hear, these specific purposes *are* attained. But then the lives of those eating it are greatly shortened; and if they stop eating it they have the horrors of the *delirium tremens*, and suffer all the agonies that a confirmed opium-eater or drunkard realizes.

ENCOURAGEMENT OF SCIENCE.—M. Breant, of Paris, has recently left one hundred thousand francs to be awarded to the discover of the cause of cholera or a cure for it. The interest of the money, is in the mean time, to be used in rewarding or encouraging the authors of any lesser discoveries in medicine.

NEW APPLICATION OF THE ELECTRIC TELEGRAPH.—We see that it is proposed to apply the electric telegraph to the piano, so that Listz, for instance, may set in his parlor in Paris, and playing on his electric piano, communicate by wires, at once, with Vienna, Madrid, Rome; or, going further even, might extend the same harmony to St. Petersburg and Constantinople. A submarine telegraph is all that is necessary to put us in the musical category of Monsieur Listz.

AGAINST CHLOROFORM IN ANY CASE.—In the Association Medical Journal for June, 1853, quoted in the American Journal of Medical Sciences, we find Samuel Beecroft, Esq., takes the position against the use of Chloroform under any circumstances whatever; and this too, after having employed it pretty extensively, even in the major operations of Surgery. He objects to the induction of anæsthesia at the expense of poisoning the blood.

SORE THROAT.—Dr. Merrill recommends, in the Boston Medical and Surgical Journal, the following prescription for Pharyngitis:—Take—Iodine, half a drachm; Iodide of Potash, one drachm; distilled water, one ounce; Sugar and Gum Arabic, each, two drachms—mix. Apply by camel hair pencil to throat whenever patient experiences a tickling sensation or desire to cough.

RESTORATION OF THE ENTIRE UPPER LIP.—The distinguished and most successful Surgeon, Prof. Carnochan, presents, in the

American Medical Monthly, a case in which he formed the new portions for the upper lip from the cheek, and retained them by the twisted suture. The success was complete.

SOOTHING LINIMENT.—Dr. Douglass, of Georgia, gives, in the Southern Medical and Surgical Journal, the following formulary to make this liniment:—Digest for two weeks by the heat of the sun, a bar of turpentine soap and four ounces of gum camphor in a gallon of alcohol. Bottle this up, and add a drachm of chloroform to every four ounces, shaking the mixture while it coagulates. His mode of applying it, is to coat the part well, and cover it immediately with paper; and says, in neuralgia, rheumatism, irritable stomach, cramps, colic, &c., the sensation created is perfectly delightful. Dr. Douglass, whom we know to be a highly honorable professional gentleman, intimates that if there is room among the nostrum liniments, pain-killers, and pain-eradicators in this country for a new compound, the above composition may do good, provided it escapes the rapacious quacks.

ASCITES—ENDERMIC TREATMENT.—Dr. Falcot recommends fomentations, with decoction of digitalis. Two ounces of digitalis are boiled in a quart of water down to a pint; compresses, dipped in the decoction, are laid over the abdomen, and covered with oil silk. The kidneys are soon powerfully affected.—*Philadelphia Medical and Surgical Journal*.

SUCCESSFUL OPERATION FOR CATARACT ON A PATIENT AGED 88.—Dr. Williams, of Boston, relates this case:—The cataract had existed more than twenty years. The needle was employed to break up the lens and push the opaque portions out of the axis of vision. No inflammation supervened; the old gentleman's habits were not interfered with; and by the aid of glasses, he could see to read the finest print of a newspaper.

A physician attached to one of the hospitals of Paris, has recently donated 10,000 francs per annum to the proprietors of the *Gazette des Hospitaux*. First condition—his name is to be kept forever inviolably secret; second—3000 francs are to encourage useful and practical papers for this journal; third—7000 francs are to be used in distributing the *Gazette* among physicians and students too poor to pay the subscription.

Correspondence.



LETTER FROM DR. WILLIAM A. PEASE.

DAYTON, Ohio, Feb. 4th, 1854.

DR. HILL—*Dear Sir*:—I notice, in a republication of an article from the Dental Register of the West, in the January number of the Recorder, numerous typographical errors, which, in some instances are ludicrous and stultify my meaning. Having been born in Connecticut, educated in Connecticut, and studied medical dentistry in the East, I dislike to have the article go before my numerous friends and acquaintances in its present imperfect shape, and will call attention to some of the more important errors.* From a practice of several years both in the East and West, in which I have carefully noted the nature and progress of disease in both localities, as well as the mode of treatment, and its comparative efficiency, I have witnessed with alarm the rapid progress of disease, and the little check it receives here especially, from the generality of operators, and the almost universal prevalence of artificial teeth, especially in the higher circles. It is truly a lamentable condition of society, a sad augury of the future, and a significant indication of the tone and proficiency of medico-dental practice, when a majority of females of mature years wear artificial teeth; but we are so accustomed to the sight that we have come to think, if we reflect at all, that somehow or another, they were made to wear them, and that they would not be the delicate, refined, beautiful and fascinating creatures they are, with savory perfumed breaths, without these mechanical appendages; and we are not staggered at the full import of the loss, and the abortion of the dental effort to preserve the teeth, that we would be, were the surgeon or

* We find upon examination that the complaint of Dr. Pease is well founded. But we have this to plead in extenuation, so far as we are concerned, that nearly all the typographical errors of which he complains were copied by our printer from the Journal in which we found his article. But the vexation to which he is subjected is not relieved by this transfer of responsibility. We have occasionally suffered from like occurrences, and know how to sympathize with him, when he is made to say, not only what he never intended, but what indeed, he never thought of.—EDITOR RECORDER.

occulist to furnish half of his patients, as trophies of his skill, with wooden legs or artificial eyes. Dreadful as these facts appear, yet they stare us in the face, and have got to be met; not by mechanics, uneducated, unreflecting men, who leap from the workshop to the office, ready-formed dentists, (like Venus from the foam of the sea,) ripe for any job or any operation; but by educated, reflecting, earnest medical men. Here the inquiry, fruitful in reflection, meets us, to what is this all to lead? What will be the condition of the next generation if this condition of things is to progress; which is so bad with the present physically vigorous, active, heterogeneous society, gathered from all countries, but principally from the Eastern States and Europe, who came here as adventurers, full of life and energy and health, and have subdued the country, led a life of temperance and frugality, and by marrying and intermarrying these widely dissimilar stocks, have re-leavened and toned up by crosses the young now assuming the active duties of life; when wealth, luxury and a homogeneous race have produced their concomitant fruits of physical decay and enervation? It is true, dentistry as a scientific profession has been but lately introduced here; and a great number of decayed teeth existed in the mouths of those who had no resource but their own unaided exertions, and were forced to rely upon those who first offered their services. From such they received their first experience of dental skill, which consisted principally in an ability to extract teeth and supply a species of artificial dentures and an inefficient method of plugging; and it is not strange that it has begotten a corresponding belief and practice, and caused them to view a set of small, white, artificial teeth, mounted on a strip of polished gold, as the ultima thule, the height of dental attainment; and to regard with a corresponding distrust him who proclaims as the basis of his creed, *the teeth should not be lost; they were made for the use of the system, and should be as enduring as the system*; and that education and medical skill constitute the noblest and only resource of the medico-dental profession.

The physique of the inhabitants—Ohio is noted for her tall, well proportioned, noble race of men, and the physical and chemical constitution of the teeth is naturally as good as in New England; for, be it observed, we have a large per cent. of foreigners, who generally bring with them large, healthy, well-developed teeth and maxillæ; but they pay little attention to them till forced to by actual pain;

this, in connection with the annual recurrence of bilious or intermittent fevers, where mercury is pushed to soreness of the mouth, produces deranged secretions, and an unhealthy condition of the mouth and gum; while the children's teeth are delicate, soft and friable—prone to early caries, which runs rapidly through the soft bone. But I have already trespassed on your patience and exceeded the limits I proposed at commencement, which was only to ask a correction of some typographical errors in an article (the first of a series,) written for a home journal, for a particular class of readers, and the wants of a particular locality, where the fallacy, not to say criminality, of ignorance in the healing art was attempted to be shown; and the great superiority of education as the foundation on which to rest thorough medical and dental education was placed in contrast. For I am persuaded there is a necessity for all earnest, reflecting men to pause and consider the future consequences to the race, if each succeeding generation is to deteriorate in physical strength, as they certainly will, if parents are thus to prematurely loose their teeth, and thus necessarily lower the tone and vigor of their constitution. I will offer as a motto in closing, the earnest exclamation of Goethe, "*Licht! licht! mehr licht!*" which freely translated is "Education! education! still more education." The German is the mother-tongue and is spoken by about one-third of our population entirely, and by nearly another third as well or better than English, and a knowledge of it is necessary to business men. Hoping your efforts to sustain a journal, devoted to the interests of dentistry, which I have perused with pleasure and profit from its first issue, may be crowned with success,

I remain, yours respectfully, WILLIAM A. PEASE.

A friend has sent us the following plan for

WELDING PLATINA.

Dissolve the grains in eight times their weight of aqua regia assisted by heat.

Precipitate the metal by muriate of ammonia; the precipitate thus obtained is partly agglutinated in the crucible into a spongy mass, and then compressed whilst cold in a rectangular mould by a powerful press or other means which converts the platina into a dense block, heat the block in a smith's forge or muffle furnace; when it has reached the welding point or white heat give it one blow with the ordinary flatter or sledge hammer; it then requires to be reheated and hammered until it is sufficiently welded or consolidated on all sides to admit of being forged into bars.

Editorial.

WHAT IS THE RELATION BETWEEN THE TEETH AND BEARD?

As our readers will perceive, we have copied what we consider a very sensible article on "*Shaving the Beard*," from the Boston Medical and Surgical Journal, which we commend to their attentive perusal.

We have long been of the opinion that the almost universal custom in this country of shaving the beard is fraught with more mischief to health and vigor of constitution than most people are willing to admit. We have altogether eschewed the use of the razor in our own case, save on the upper lip, and only tolerate it here out of a decent respect to popular opinion, and an individual dislike to the *mustache*, from certain unpleasant associations. But we do wish from our heart that the custom of shaving at all were entirely abandoned, believing as we do that it is decidedly a *barbarous* one.

And, individually, we are glad that the matter has been taken in hand by certain independent thinkers and writers who seem determined to bring about a real hirsute reformation.

That diseases of the throat, larynx, bronchia, &c., are often relieved, if not entirely prevented by withholding the razor from the face and throat, is too well known to be considered much of a novelty, our readers will agree.

But that the *teeth* are implicated at all in the matter, may not so readily be admitted. But why not? Why may not the teeth suffer severely from this cause?

We believe it to be an admitted fact that the people of England and the United States suffer far more from diseases of the teeth, and the consequent loss of those organs, than any other people in the world. But why is this so? We have never yet found a satisfactory answer.

It is true, we have read long dissertations and learned essays upon this subject, but up to the present moment we do not think that the question has been fully and satisfactorily met.

We think we understand the more immediate or proximate causes of this wholesale destruction of the teeth. We are also able to comprehend some of those more indirect and remote causes which are supposed to contribute to this result. But yet, we do not feel satisfied.

The effect of climate—the influence of disease—the social habits of the people—hereditary tendencies, &c., these are doubtless to be considered, but will they account satisfactorily for the difference which is acknowledged to exist between the teeth of our own, and those of the people of other countries?

And if not, have we not still to look for influences which have hitherto, either been overlooked or entirely disregarded.

What then may be the effect of *shaving the beard* upon the dental organs? Let us for a few moments consider this question.

Here then, at the outset, we have this singular fact, that precisely where the habit of shaving the face is most generally adopted and practiced, there is confessedly the greatest amount of suffering from diseases of the teeth. This we believe to be the fact, and whatever may be thought of it in this respect, we can but regard it as a coincidence of some importance. We doubt not but our very seriousness in the matter will provoke a smile on the face of some of our readers who may have come clean and smoothly shaven from the chair of their barber; but we ask them to explain this coincidence, together with other considerations which we herewith present, if there be no force in the argument.

In addition to those presented by the author of the article which we copy, we would suggest that the face cannot be closely shaven without producing a considerable degree of irritation. And where the practice is followed day by day, and the razor is rather dull, we have here a source of continuous irritation which must be disastrous. In very many cases where the cuticle is thin, and the beard tough and wiry, blood follows the razor at every stroke, and the papillary organs are constantly fretted, and the sentient extremities of the nerves are subjected to an amount of irritation, which, if inflicted as a punishment, would be considered as *barbarous* in the extreme.

In order to estimate this irritation, let the reader apply some pure *eau de cologne* or bay water, or a little whiskey, to his face immediately after shaving, and witness the result. It will sting like fire—it will start the tears in a moment—it will make him “wince like a galled jade.”

But previous to shaving no such effects will be experienced from its application. Now who will undertake to say that this amount of irritation, and the necessary exposure consequent upon it, can be continued a long time with impunity?

Take another case.

Let the upper lip be shaved with a dull razor, and our word for it, eyes unaccustomed to tears will weep profusely. But what relation is there between the eyes and the beard of the upper lip?

That this relationship is intimate and important, we have conclusive evidence in these simple experiments. But, *individually*, we have another, which our readers will excuse us if we mention in this connection.

For many years we have suffered with weakness and irritation of the tarsal membrane of our eyes, and this irritation has been so severe at times as to threaten the loss of the visual organs. But by accident we found that by allowing the hair to grow unshaven upon our cheeks we were sensibly relieved of this irritation, and have continued wearing our beard as nature has formed it in this respect, with conscious advantage ever since. And we have not the least doubt that in thousands of cases the most decided and marked relief would follow a similar course where such irritation exists.

In view of all these considerations, is it improbable—nay, is it not altogether probable—that there may be an intimate relationship between the *beard* and *teeth*, and that to the general and prevailing custom of shaving the beard may be attributed not merely the prevalence of bronchial and lung affections, which constitute the most terrible scourge of our country, but the wholesale and increasing destruction of the dental organs.

No question of greater magnitude to our profession can be presented, than that which involves the causes of this premature destruction of the teeth, among the people of this nation, and especially as this evil is increasing at a rate so alarming.

At the rate things are now going we shall be compelled to supply the *children* with artificial dentures in the course of a few more generations. For we can scarcely preserve the natural organs now, in many cases, even with the utmost care, until adult existence.

It may be said that *women* and *children* have no beards, and consequently our reasoning is inconclusive. In reply to this, we have only space at present to say, that there is a passage of Scripture which affirms that the "sins of the fathers are visited upon the children, unto the third and fourth generations." And the history of medicine most completely vindicates its truth, in more ways than one. Man was never made either to enjoy or suffer *alone*. And the result of evil habits are not always most distinctly visible in those who immediately indulge them. But the consequences *will*, at some time, appear.

Some kinds of grain must lie in the ground through the winter, before it will germinate to perfection. Certain kinds of vegetables are a long time in coming to maturity. And thus it is with habits. The parent may be conscious of no direct evil to himself in following a given course of conduct, but the seed is planted, and his offspring *must* suffer. Nature never works blindly—never works without an object—a design. And it is simply absurd, to suppose that in strict accordance with a uniform law of our being, the development of the beard upon a man's face is altogether useless, or the shaving it habitually an innocent recreation.

We cannot by any means do justice to the subject in these few brief notes. A variety of considerations bearing upon this matter present themselves to our mind while we write, which must be dismissed for the present. Our object is, merely to break ground, in hopes that the matter will be taken up and thoroughly considered as we think it should be, by some competent writer.

We confess our indebtedness for some valuable hints upon this subject, to an interesting editorial in the New York Tribune, which we *guess* is from the pen of Bayard Taylor, Esq.; at all events, we wish we could have had *his* opportunities for making observations upon this subject, among the different races of people embraced within the extensive circuit of his travels.

We glanced at the article, and as we read the following sentence, recommending the wearing of beards—"In this country of spare visages and throats, it may be particularly commended as the best preventive against the *tooth ache* and *bronchitis*"—we thought, is there not much force as well as good sense in the suggestion; and may we not profit by a friendly hint.

AMENDE HONORABLE.

We have received a friendly note from Dr. F. Y. Clark, Editor of the Dental Monitor, accompanied by a communication for the Recorder, touching the matter embraced in the letter which we published from Dr. Robertson in the January No.

The Dr. assures us that the fault of publishing the articles referred to by Dr. Robertson and the Editor of this journal *without credit* is *solely due* to the perverseness and obstinacy of his publisher, and that he most sincerely deprecates the occurrence, which we will do him the justice to believe. We withhold his communication simply because we wish as much as possible to avoid personal strife and altercation. We noticed the matter because we deemed it right, but feel satisfied with Dr. Clark's explanation.

TO WHOM IT MAY CONCERN.

Several communications have been received from our subscribers, with reference to the withholding the last No. of Vol. 7, in consequence of non-payment of subscription, averring, that they have forwarded the money, for which no acknowledgment has been made. Now, we wish to have it distinctly understood, that we have nothing to do with this matter whatever. Our predecessor, Dr. C. C. Allen, has had the *entire* responsibility as to the finances of the Recorder, up to the time of transferring the business into our hands, about the 1st of Jan. last. Since which time we hold ourself responsible. Dr. Allen will doubtless explain all matters of this kind, if personally addressed upon the subject, and make all due satisfaction.

In answer to our subscribers who wish to know how they shall forward the amount of subscription, we would say, enclose the amount in a letter directed to the Editor, and forward at *our risk*. A Dentist must be hard pushed who would *lie* to cheat us of two dollars. We will take *his word* that he sends it, whether received or not. Send New York or New England currency, if in bills; if in gold, send dollar pieces, secured to the letter by sealing-wax or something to keep it secure. The best way is to pay up *forthwith*, and then the matter will be done with, and all future difficulty avoided. When we receive enough to make it worth while, we shall publish our receipts in the Recorder. Our agents are authorized to receipt all payments made to them, the same as if made to the Editor.

 TRAUMATIC TETANUS SUCCESSFULLY TREATED BY ICE.

Dr. B. D. Carpenter, of Cutchogue, L. I., reports in the New York Medical Times, the successful treatment of two cases of this terrible disease, by applying ice to the head and spine of the patients during the spasms. This application, it is said, acted like a charm, and immediately relieved the most painful symptoms. Both patients recovered within a very short time. The ice was applied from ten to thirty minutes each time, with intervals of from two to eight hours.

We have witnessed one death from Traumatic Tetanus, superinduced by operations upon the teeth, and such a thing may possibly occur again. It is well to know that such an application may cure this disease.

 FRIENDLY NOTICES.

We wish to express our grateful acknowledgments to our exchanges for the courteous and kindly manner in which we have been welcomed among the *corps Editorial*, and the cordiality with which our Recorder has been received, notwithstanding some difficulties and disadvantages experienced at the start.

Also to some of our correspondents who have so promptly renewed their subscriptions for the current volume, and who have accompanied the same with their kind words and generous good wishes for our success. *Such* kind words are treasured up as among the pleasant things to which we may always recur with interest.

 DENTAL PRACTICE FOR SALE.

We call the attention of our readers to the advertisements in the present number headed as above. Those desiring a chance may find them of interest.

CRYSTAL PALACE DENTISTRY.

Since our last issue, we have received information in regard to the operations of some of the exhibitors, and the Dental Committee in reference to dental exhibitions at the Crystal Palace, that presents the whole affair in a very unpleasant aspect.

It seems that the awards, of which we spoke in the last number, were not made in accordance with the report of the Committee, at least the *majority* report, and that the result has given great dissatisfaction, and created a controversy which is likely to end in strife and ill feeling. Whatever may be the real facts in the case, we can but deprecate these unpleasant circumstances. It seems as if nothing could be accomplished in our profession without stirring up a civil war. The endless feuds and jealousies of professional life seem peculiarly rife amongst us, as every occasion brings them forth in their most painful aspects. And the worst of it is, that they must come before the public in such shape as to display the heterogeneousness of the materials of which our profession is composed, and the entire want of fellowship and good feeling that seems to exist amongst us.

We shall not pretend to decide the merits of the case before us, in view of the various conflicting statements which we have heard. We have scarcely a heart to wade through the voluminous details of this affair, when we think how easily it might have been avoided, if every one had been willing to do *just right*.

But henceforth the very subject of dental exhibitions will so savour of strife and controversy, as to be completely distasteful to us.

JOINT STOCK TOOTH MANUFACTURING COMPANY.

The semi-annual Dental Expositor, for February contains the announcement and Articles of Association for the organization of a Joint Stock Company for the manufacture of Mineral Teeth, entitled the "New York Teeth Manufacturing Co."

We believe that a Joint Stock Company organized for the same purpose has been in full blast for some time past in Waterbury, Ct., under the superintendence of Dr. C. O. Crosby of New Haven.

It is really getting to be a great business—a *staple* business, this manufacturing mineral teeth, and at the rate things are progressing, we are apprehensive that even our children will have to be supplied with them before three more generations are passed, or remain toothless. There is unquestionably a great deterioration in the teeth of each successive generation now coming upon the stage of existence. and what is to be the result? The constitutional structure of the teeth of children now in existence, is radically deficient, in a vast majority of cases. And a grave question is hereby presented to the mind of the physiologist as well as the dental surgeon. Is not this degeneracy equally evident in regard to the ossific system generally? If so, it is a most alarming fact.

We shall return to this subject again in some future number.

AMBLER'S JOURNAL OF DENTAL OPERATIONS. Published yearly by J. G. Ambler, M. D., 31 Washington Place, N. Y.

We have been accustomed to use this work for several years past, and have come to regard it as almost indispensable. For real convenience, we prefer it to any which we have ever used. Every practitioner of Dentistry should have this or some similar arrangement in which to record his operations.

New York Dental Recorder:

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

Vol. VIII.

APRIL, 1854.

No. 4.

ODONTALGIA—ITS PATHOLOGY AND TREATMENT.

A valuable article by J. P. Togg, M. D., appeared in the American Journal of Dental Science, (July, 1853,) under this head, which, in view of its general utility, we are not surprised to see copied entire by some of our medical cotemporaries. Believing an article on this subject needed by the physician as well as dentist, and that the one is as appropriate as any to be met with, we present a synopsis of the substance of it—if indeed the substance of a good article of sixteen pages can be condensed in the space of five or six.—We depart from the author's arrangement, in bringing the "Pathology" and "Treatment" of each disease together, regarding it more convenient for reference. His own words are preserved as nearly as possible, but the sign of quotation is employed only when a sentence or passage is given entire.

To the form of Odontalgia, which is the result of simple exposure and irritation of the dental pulp, may be given the name of *tooth-ache by direct irritation*. It is characterized by quick, darting pain, and by the suddenness of its invasion and subsidence upon the presence or removal of irritants.

Treatment.—Application of narcotics and anæsthetics to deaden sensation: or vehement stimulation of the exposed nerve to exhaust its sensibility, as by the essential oils of cloves, cinnamon, cajeput. Kreosote is both stimulant and anodyne; combined with morphia in a thin paste, it acts well. A thick solution of *gutta percha* in chloroform allays the pain, and forms a coating which shields the nerve for awhile.* Permanent relief is only afforded by extraction of the tooth,

* A pledget of cotton, saturated with a solution of gum copal in chloroform, answers a similar purpose.

or by destruction of the nerve. For the latter, arsenous acid is the most efficient, combined with four parts of morphia to abate the pain. Apply directly to the nerve on a small pellet moistened with kreosote, and covered with a cap [of wax] so as to avoid pressure.* Irritation may run on to

Odontitis, or inflammation of the dental pulp. This begins ordinarily with a dull, gnawing uneasiness, (sometimes accompanied by a sensation of heat,) increasing to a severe throbbing pain, the precursor of suppuration. "Should the inflammation extend beyond the pulp cavity, the pain is not increased by pressure on the tooth, nor is the tooth started from its socket. The application of cold to the tooth is also followed by temporary relief." The intense pain results from the distension of the capillaries of the pulp from the inflammation, and the unyielding nature of the cavity; the increasing engorgement being attended by increased pain, which is not relieved by suppuration, until the fluid gets exit through the fang, or the pulp becomes disorganized—the pus only increases the pressure on the nerves. Excitement of the heart and arteries is also apt to increase the pain. Like other inflammations, it has exacerbations at night, owing partly to the recumbent posture, and also to the warmth of the head imbedded in pillows. The pain is modified by temperament, and by the condition of the tooth. The *acute* form of inflammation of the pulp "extends to every part of the pulp and lining membrane, and terminates usually in suppuration. It is more common before than after exposure of the pulp." The *chronic* form usually results from exposure of the pulp, and is not so painful as the acute; sometimes there is little or even no pain.

The *Treatment* will be, to extract the tooth, to destroy the nerve, or to subdue the inflammation by antiphlogistics—to be determined by the amount of pain, progress of inflammation, condition of the surrounding parts, value of the tooth, &c. If the inflammation has proceeded too far for arrest, or the lining membrane become exposed, and the object is to preserve the tooth, the nerve should at once be destroyed. "If the tooth is not eroded, or if the inflammation is not caused by the direct application of irritants to the exposed pulp, the antiphlogistic treatment may succeed"—leeches to the gums, saline

* We generally prefer one part arsenic to two of morphia, using about the 20th of a grain of the compound, and letting it remain in the cavity six or eight hours—re-applying the powder, if necessary.

cathartics, and rigid abstinence. When suppuration has occurred—indicated by the tooth appearing longer than the rest, loose, and very sore—the tooth may be drilled (as recommended by Dr. Hullihen) to evacuate the pus.

Peridontitis, or inflammation of the investing membrane of the tooth, is closely allied to the preceding, and may be produced by the same causes. But it is more likely to be metastatic. The pain is first dull, then acute and throbbing. There is soreness and elongation of the tooth, redness and swelling of the gums, and sometimes of the cheek. "In both these forms of odontalgia we may have all the accompaniments of inflammation, such as constipation, head ache, dry skin, flushed cheeks, full and rapid pulse; in short inflammatory fever." The *treatment* is very much the same in both.

Fungus of the nerve is a growth in the nerve cavity in which the nerve has suppurated, and probably originates from a remnant of the dental blood vessels. It is of a deep red color, soft, bleeds readily and freely, sometimes insensible, at others highly sensitive. It may be small and deep in the fang, but generally protrudes, filling up the cavity formed by caries.—(Hullihen.) It must be destroyed by the actual cautery. By bleeding it freely, the pain may be relieved.

Odontalgia may also proceed from exostosis. Remedy, extraction.

MORE GENERAL CAUSES of *Odontalgia*. Intermediate between the foregoing and the causes now to be considered, is a nervous condition, in which the general sensibility is so exalted that slight causes induce severe pain.

Neuralgic tooth-ache may proceed from any affection capable of producing neuralgia elsewhere. Among the intrinsic affections may be mentioned *neuritis*, or inflammation of the nerve or its neurilemma; engorgement of the vessels of the nerve; venous congestion. Any pressure of the nerve along its course, as from exostosis, aneurism, tumor or foreign body may produce neuralgic tooth-ache. The teeth are often implicated in attacks of facial neuralgia or *tic douloureux*, which may depend upon similar causes. In a case of this disease, the Gasserian ganglion was fibro-cartilaginous, and as large as a nutmeg. Or the disease may depend upon disorder of the encephalon, affecting the fifth nerve at its origin.

This general neuralgia of the face may result from the irritation of a diseased tooth—by *radiation*, or "that power of the nervous centres by which they disperse an impression made at one point over a

wide circuit," or by *transference*, by which an impression at one point is felt at a remote one. This irritation of a ramussle of the inferior dental nerve may arouse central disturbance, and be *radiated* over the whole face and head; and, (illustrative of the law of transference,) in a case of Mr. Lawrence, "neuralgia of the *thumb* was caused by the pressure of a *pivot tooth on the nerve of an old fang*."

The teeth may also suffer those strange wandering pains which characterize the masked intermittents of malarious districts. Universal *malaise* generally accompanies the disturbance. "As the disease advances, the periodic element gradually retires, and the neuralgic becomes unduly prominent."

The pain of neuralgic tooth-ache is usually acute, sometimes mild at first, gradual in its increase and decline, usually irregular, (moderate, slow, or darting through the dental arches,) sometimes regularly intermittent. When it occurs in sound teeth it is paroxysmal, is attended with little or no swelling, and occupies a considerable portion of the jaw, "and especially when it alternates or is associated with pain of the same character in other parts of the face, there can be little doubt as to its real nature." (*Wood, Practice of Medicine*.)

The *Treatment* will vary according to the cause. If the disease depend upon exaltation of general sensibility, nervous or vascular derangement, disturbance of the nervous centres, malarious poisoning, etc., it must be combatted by general treatment adapted to the condition of the case. In obstinate cases of local neuralgia, M. Roux recommends, if the inferior nerve be involved, trephining the lower jaw so as to reach the nerve: he then severs it and passes a stick of *potassa fusa* up and down the canal, so as completely to destroy it. For the superior nerve, an incision is made upon the cheek, and the caustic introduced as deeply as possible along the infra-orbital canal. Local sources of the disease, as pressure on the nerve for tumors, irritation from diseased teeth, &c., must be looked for and the cause removed.

Sympathetic tooth-ache.—"The nervous connections of the teeth are so numerous and so extensive, that we need not be surprised at the wide range of their sympathies. The fifth nerve, supplying the whole face and all the organs of the senses, brings them in relation with the entire head. But besides this, they have special connections with many of the more important organs of the head. Meckel's gan-

gion and its branches, forming a sort of sympathetic centre for the entire head, is directly connected with the superior maxillary nerve, just as it is about passing into the infra-orbital canal for the supply of the upper teeth. With the ear they are still more intimately connected through the otic ganglion, which rests upon the inferior maxillary nerve, at its exit from the foramen ovale. This union will explain the extreme frequency of ear-ache in children at the period of second dentition, and the tooth-ache which sometimes attends it. The same ganglion, by means of the tympanic plexus which is so directly connected with it, brings them in relation with the glosso-pharyngeal and the pneumo-gastric nerves, and so establishes a sympathy between these organs and the whole upper portion of the alimentary canal, and with the lungs. Through the sympathetic system these connections are indefinitely extended. With the spinal cord they have not only the union, through the origin of the fifth nerve, with the spinal bulb, but also through the numerous filaments of the sympathetic which are connected with the spinal nerves. Thus we find that, through this intricate web of sensory filaments, the teeth are directly or indirectly united with every organ in the system.

"During certain conditions of the system, therefore, it is not surprising that these sympathies should be roused to undue activity. Many diseases have the power of inordinately exciting nerves remote from the organ affected. The various disturbances of the alimentary canal are remarkable for this peculiarity. The anatomical connection between the stomach and bowels, and the teeth, already glanced at, sufficiently prepares us to expect tooth-ache as an occasional accompaniment of disorder of the apparatus of alimentation.

"*Pregnancy* is another state which is very liable to excite sympathetic tooth-ache. This is indeed but a part of those numerous remote disturbances which are caused by the peculiar condition of the uterus at this interesting period. All the organs of the abdomen are involved in that intricate net of nervous filaments which are ultimately distributed to the uterus. The two great cords of the sympathetic which descend from the solar plexus and semi-lunar ganglion, on both sides of the aorta, first unite over that vessel in a plexus which weaves into itself all the various threads of which these cords and the stray fibres which surround them are composed. Having thus knit up the life of the whole abdomen in one intricate interlacement of fibrillæ, the nervous mass then divides into its two hypogastric nerves and

their plexuses. These proceed directly to the ganglia of the uterus, sending off great numbers of nervous twigs to all the neighboring organs, and wrapping all the pelvic viscera in their labyrinthine threads. In this manner is the great organ of reproduction brought into relation with the entire frame. During pregnancy, as has been clearly demonstrated by Dr. Lee, the nervous system undergoes the same change to which all the other structures of this organ are subjected. They increase in size, and this increase extends even to the cords which descend from the semilunar ganglia. There are, therefore, both anatomical and physiological reasons for the extensive range of sympathies possessed by the pregnant uterus. The close contact of the semilunar ganglion with the stomach, and the relations between that organ and the teeth, explain how these may be involved."

These forms of odontalgia require constitutional treatment, which must be left to the judgment of the practitioner in each individual case.

Rheumatism and *Gout* may also affect the teeth. Of the latter, an interesting case is recorded by Dr. Harris in his *Principles and Practice of Dental Surgery*. The treatment must be directed towards the general disease.—*Southern Journal of Medical and Physical Science*.

APPLICATION OF ARTIFICIAL TEETH BY THE AUROPLASTIC PRINCIPLE.

NORWALK, CT., Nov. 9th, 1853.

DR. C. A. HARRIS—*Dear Sir*:—In the October No. of the *American Journal*, I noticed an article entitled, "Application of Artificial Teeth, by the Auroplastic Principle, by Edwin Truman, Dentist, London."

In referring to this article in your editorial, you observe, "In alluding to the use of gutta-percha as a base for artificial teeth in a former number of the *Journal*, we stated that we believed Dr. Hill, of Norwich, (should be Norwalk, Ct.,) was the first to test its applicability for this purpose. He informed us by letter, about four years ago, if our memory serves us correctly, that he had then made some experiments with it, which promised the most satisfactory results. We should be glad to hear from him again upon the subject, and learn to what extent his expectations had, by his subsequent experience, been realized."

It will be my pleasure to respond to the wish so courteously expressed in the paragraph just quoted, and I will now proceed to give the result of some experiments with the substance referred to.

My experiments with *pure gutta percha* as a base for artificial teeth, were by no means satisfactory. It is too stringy and elastic in its pure state, to be used with much convenience. I therefore made a compound, similar to the article known as "Hill's Stopping"—with which I was much better satisfied, and which I subsequently used as a base for artificial teeth.

With this compound material, my experiments have been chiefly made. My method is as follows: After having secured, and prepared my plaster model, I cut out a rough pattern for a plate, from the compound material, which is rolled out into a sheet about the sixteenth of an inch in thickness. This, I immerse in hot water, when it immediately becomes soft and plastic. While plastic, I press it with my thumb and fingers where I wish it to go upon the model. Occasionally immersing it in the hot water as it becomes cool, until it is made to take the precise shape which I desire. It is now to be trimmed and dressed until the edges are smooth and true.

It is necessary that the alveolar border should be quite thick. This can be easily made so, by adding small strips, until the required thickness is obtained. When this is done, it is ready to receive the teeth, which may be secured as follows:

If pivot teeth are used, (and they can be in many cases with satisfaction,) I proceed as follows: I sit down, with my model before me, with a small spirit lamp lighted at my right hand. After selecting the tooth which I design to use, I seize it with a pair of common pliers and gradually heat it in the blaze of the spirit lamp, (it requires but little heat,) and then press it firmly in its bed on the alveolar border, just as I wish it to stand when in the mouth. And thus I proceed, until the teeth are arranged, occasionally trying the piece in the mouth, to see that it is all right. Supposing the teeth to be all right in their arrangement, I next proceed with a small flat-smooth pointed instrument to lay the compound all around the base of the teeth, in a solid and substantial mannner, occasionally heating my instrument in the blaze of the spirit lamp, and massing it down. If ordinary plate teeth are used, they should be lined, or backed in the usual manner for setting on plate, only leaving the backings longer than is customary for soldering on plate, and allowing it to turn out

a little from the tooth, so that the compound can cover it, and retain it firmly in its place. This can be done so as to give great strength to the teeth, when properly arranged. All this can be done in less time than it will require to write these directions, save, perhaps, the backing of the teeth.

I suppose the teeth now in use in Dr. Allen's process of continuous gums will answer a better purpose for this kind of work. Such, in short, is my plan of setting teeth, on a compound base. It will be perceived, that any required shape can be given to the gums, and any irregularity in the alveolar ridge easily adjusted. A portion of the compound I prepare of a gum color, and lay it on as may suit my convenience or taste, with my small smooth-flat instrument, heated in the blaze of my spirit lamp. The whole process is very simple, and much easier executed than the method adopted by Mr. Truman of London.

Let us consider the objections to this way of mounting artificial teeth. The objection does not lie on the ground of non-retention of the teeth. If proper care is observed in mounting them, they will bear any legitimate use in mastication. They will also continue useful for several years, as my experiments will show.

But the great objection in my mind is, they will not retain their proper color. I have succeeded in making a beautiful gum colored compound, and can paint them with various shades of the same article, and when first used, look exceedingly well, but they will change color in the mouth, and look bad enough after a little use. If this difficulty could be obviated, I should think much better of the plan. But I see not how it can be, until we can impart to it an enameled surface, which is not soon likely to be accomplished. A flesh colored compound would indeed be miserable, but I have not yet succeeded in making a gum color that would not fade, or turn dark and livid, under the influence of the action of the fluids of the mouth. A simple compound like the "stopping," operates the best in the long run, of any I have tried.

Temporary sets may be constructed on this plan, with great facility and at a small expense, answering a very good purpose. Indeed, I should think them altogether preferable to the English bone, or hippopotamus base. And they may be renewed or entirely reconstructed at any time, with little difficulty.

For under sets, this article is peculiarly adapted, inasmuch as it is

so easily moulded to any desirable form. And the base can be made so thick and strong, as to enure any service. And the teeth are firmly held in their places by being stuck into the compound when slightly heated, without any other support. It will afford sufficient weight to the piece, and bulk, to any extent. Where one or more grinders are lost, this plan furnishes a simple and economical substitute, as they may be retained without clasps or ligatures.

If thrown back thirty years, I should certainly regard this as a great and useful invention. And even now, it may be regarded as a great convenience for temporary uses. But otherwise, I have little satisfaction in this kind of work, since I have seen the beautiful block and continuous gum work of the present day. As to strength, there is no difficulty; and in some cases it may be made really handsome. But it is not easy to overcome our predilection in favour of the precious metals, as a base for artificial teeth.

I have thus, my dear doctor, endeavored to give you a very brief description of my experiments on the "auroplastic principle," and would be pleased to communicate more specific information regarding it, either to yourself, or any other member of the dental profession, if desired so to do, at any time.

Very truly yours, A. HILL.

P. S. I do not understand how gold can be deposited directly on gutta-percha by means of the galvanic battery, as set forth by Mr. Truman, of London. If this can be done, a great point will be gained, as to the success of these experiments, and the principal objections obviated.

Perhaps you can give me some light upon this subject. If so, I would esteem it a special favor.—*American Journal of Dental Science.*

PROFESSIONAL PEBBLES, PICKED UP ON THE SEASHORE OF MEDICAL SCIENCE.

BY J. E. SANBORN, M. D.

Those parts of the body which are newly formed, as for instance, a recent cicatrix, are much more liable to ulceration than those which have long existed. . . . Parts remote from the heart ulcerate more rapidly than those in its vicinity, from the enfeebled capillary forces. . . . In searching for the causes of disease, we often err in limiting our observation to recent influences, quite omitting more remote but

perhaps equally efficacious ones. . . . Slight causes, long continued, are often as efficient agents of disease, as sudden, but violent ones. . . . As as a general thing, in case of severe internal inflammations, the sudden change of the pulse from very slow to very fast, is one of the first indications of the yielding of the system, and of approaching dissolution. . . . If the pupil be dilated during sleep, there is reason for fear. . . . In obscure diseases of children, keep a sharp look out for some form of cerebral disorder, very likely hydrocephalus. . . . It is often very important to diagnose the *cause* of convulsions, occurring to children, whether in the brain, or in some other organ. We may conclude it is *not* in the brain, if the attack be sudden, if it occur in the midst of previous health, if consciousness exist between the convulsions and if the respiration be not abnormal.

When consumption is inherited, it more generally develops itself in the same sex as that of the predisposing parent. . . . In very young infants, under six months of age, the pulse is often quite undisturbed in dangerous illness, especially by serious abdominal affections. . . . In case of disease of any internal organ, produced by severe external injury, the longer the interval between the accident and the manifestation of disease, the less favorable will be the probabilities of recovery. . . . There are states of debility, in which the action of the heart, instead of being less frequent, is more frequent than in health, and the success of treatment will at once show itself accordingly. . . . When profuse perspiration occurs in the course of protracted disease, without a crisis, the case demands much care; exhaustion will very likely set in, and stimulants will be needed. . . . It is not the mere perspiration in fever, that is so salutary; none but out-siders think so, but it is that peculiarly favorable condition of the system which involves spontaneous perspiration. The point is not to *make* the patient sweat, but to induce such a condition of the whole system that he will sweat himself.

The distressing and often fatal effects arising from severe constitutional irritation, generally depend much more upon the state of the system, than upon the amount or severity of local irritation, or even the absorption of a morbid poison. . . . Warm climates (and seasons) increase constitutional irritability and diminish the vital powers. . . . The treatment of chronic diseases frequently resolves itself into little else than the careful restoration of all the secretions, and the cautious removal of all obstruction in the pathway of the patient's spontaneous

recovery.... An irritable constitution is more liable to the invasion of inflammation, and in such its course is usually more dangerous and extensive.... When leeches produce, as in some persons, a peculiar erythematous appearance, their use is not generally productive of favorable results.... It is in general and not partial paralysis that the preparations of nux vomica are usually most esteemed.... It is not new, but true, and apt to be overlooked, that functional disturbance is very likely to run into organic lesion.... Often in children, before death, there is a remission and sometimes a suspension of morbid manifestations—especially in cerebral diseases—a painful warning of impending dissolution.

In the earlier stages of acute bronchial inflammation, beware of opiates, not so much that they “check the expectoration,”—there is an error in that notion, but because they aggravate the existing venous tendency, and may increase the disposition to coma.... We may say that in chronic bronchitis, the more profuse the expectoration, the less is the probability that the disease will finally become phthisis, especially if the sputa be albuminous—provided, of course, no physical signs of consumption co-exist.... Hæmoptysis was one of the early symptoms of phthisis in two thirds of the cases which came under the observation of Louis: yet only three out of three hundred of his patients died of Hæmoptysis.

Hurried starting from sleep, with a sense of impending suffocation and a demand for fresh air, are frequently indicative of organic disease of the heart.... In cases of protracted dyspepsia, with general constitutional depression, but uncomplicated with positive gastric symptoms, it will be a wise precaution to look out for phthisis.... It is alleged that convulsions in children are not caused by teething, *because* they do not cease upon incising the gums;—what of that? It is no new thing for sympathetic irritation to be kept up, long after the specific cause has been removed.... Any abnormal respiration, especially of a slow or irregular character, if unconnected with evidences of pulmonary disease, should at once direct attention to the brain.... In almost all diseases, the digestive function is more or less disordered; though it by no means follows that this derangement should be an object of treatment.... Mere symptoms are capricious enough—sometimes a swarm of them, with no corresponding disease; and again, the severest diseases, with hardly a manifestation. Their importance is by no means in proportion to their prominence. The

most violent are often valueless, while the most obscure may render to us the greatest service. . . . It is a truth, often of practical value, that disease is seldom limited to one organ, or even to one portion of the system. . . . In the whole range of disease, there is hardly one symptom, which, by itself, is always indicative of any one constant condition of an organ. . . . When in the course of disease, sympathetic irritations, as of the nervous, vascular or respiratory systems, are uncommonly well marked, the ordinary local symptoms of the disease are less manifest: but we must not infer from this that the primary disorder has yielded. . . . In treating the tympanitis of gastro-entritis, withhold the internal administration of terebinthines while the case admits of antiphlogistic treatment. . . . A celebrated English author states that he has never seen a case of acute inflammation of the liver, accompanied with pain in the shoulder; and Andral testifies that it is very seldom met with. . . . It is a pretty constant law, that in inflammation of the viscera, the greater or less pain indicates, with considerable accuracy, the superficial or deep seated locality of the inflammation.

MRS. WILLARD'S THEORY.

Several Medical journals are vigorously discussing the new theory of the circulation of the blood, as announced by Mrs. Emma Willard, a distinguished lady physiologist of Troy, N. Y., that "*the chief motive power of the blood is in the lungs.*"

The interesting experiments of Dr. Cartwright upon the alligator, confirmatory of this theory, have, and are attracting much attention.

It is said that the cutting of the wind-pipe prevents the slaughtered animal from bleeding. The Editor of the Nashville Medical Journal says: "We have made inquiry of butchers, whether, if the great veins of the neck were divided *after* the wind-pipe was cut, would not those veins bleed freely? We were answered "That if the wind-pipe was cut, you might as well afterwards try to get blood out of a turnip, as from any part of the animal; and that even should the heart be split open, it would not bleed. He further says—"We visited an old stock raiser, a man of learning and extensive information, and noted for the closeness of his observation. He agreed with the butchers, saying emphatically, 'if you cut the wind-pipe, *and let blood into it*, the animal will not bleed. You cannot make him bleed, no matter where you cut or stab.' And he added, 'why, sir, every body knows that.' "

Miscellanea.

A correspondent of the Boston Medical and Surgical Journal, writing from Paris, mentions the performance of an operation by M. Maisonneuve, never before made upon the human subject.

The operation consists in uniting the small and large intestines, in case of obstruction, so that a new route may be established for the passage of the fecal contents, and is performed in the following manner: The patient is placed upon the back, being a little inclined to the left side, and an incision is made in the abdominal parietes, from five to six inches in length, on a line with the body, just above the crest of the ileum. The cœcum is sought, as a fixed rallying point of departure. Then a portion of the intestine of the stricture, which can be easily recognized as being distended with fecal matter, is attained, also a fold below. These are then brought together and placed parallel to each other. The superior portion is incised with a pair of scissors, the length of six inches, and the distended parts above carefully emptied of their contents. The lower fold is incised in like manner. These tubes lying side by side, their internal walls are united by a simple suture—the serous surfaces being in contact, something like the seam of a garment before it is pressed. Then the external walls of each tube are brought together by turning the incised edges inward—so that the serous surfaces, as before, should be in juxtaposition—and united by a suture armed with two needles. Thus the free margins, and the serous surfaces are in proximity, so that agglutination may take place with facility. This being done, the intestines are returned, and the external incision dressed in the ordinary manner. After this the patients have nothing to do but die.

CAMPBOR IN ERYSIPELAS.—Dr. Spoerer, of St. Petersburg, considers Camphor, administered internally, as a specific in Erysipelas. He gives from a half to two grains of it every two hours, bathes the parts affected occasionally with luke-warm water, and then covers them with linen. He applies this treatment to the different varieties of this cutaneous affection, whether epidemic or traumatic.

AN INQUIRY INTO SOME OF THE RELATIONS BETWEEN MENSTRUATION, CONCEPTION, AND LACTATION; AND THE INFLUENCE OF LACTATION IN CAUSING ABORTION; FOUNDED UPON AN ANALYSIS OF THE HISTORIES OF ONE HUNDRED WOMEN.—A valuable paper, in which the above topics are fully discussed, was lately read before the Medical Society of London, by Dr. Robert Barnes, from which the following deduction is drawn :

1. Lactation exercises a considerable influence in preventing menstruation and conception.
2. This influence appears to be marked and constant in some women, and to exist but feebly in others.
3. The influence of lactation, in averting menstruation or conception, cannot, for the most part, be kept up longer than twelve months.
4. There is a close relation between the occurrence of menstruation during suckling, and conception, viz: When menstruation appears during suckling, conception is very likely to follow.
5. When pregnancy takes place during suckling, and suckling is continued, abortion is very apt to follow.
6. The chief causes of the abortions brought about during suckling, are the revolt of the ovaria and uterus, evinced by the return of the menstrual nixus; and the deterioration of the mother's blood; to which must be added superinduced disease of the ovum.
7. The practical conclusion that weaning should be enjoined, not only whensoever pregnancy takes place, but also whensoever menstruation returns.—*Lancet*.

MEDICAL PATRONAGE IN EUROPE AND THE UNITED STATES.—There are vast numbers of persons qualified by law to practice medicine and surgery, in Europe; but the majority of those who depend exclusively upon their professional efforts, find it difficult, it is believed, to sustain themselves in the country. Cities offer better prospects, and one or two in a hundred rise to distinction and affluence. Were it not for the standing armies of nearly every government on the continent, requiring surgeons of all grades, the field would be too small for the multitude who would be contending for a livelihood. As it is, with the navies and regiments to take up thousands, the numbers who abandon the profession, and turn their attention to industrial pursuits of a different character, would make quite a respectable force for an emergency, were they brought together. With us,

there is no encouragement for government patronage. A man would accumulate more as a farmer, and save it for old age, than he would be likely to lay aside when on a salary. This is decidedly the best country for a private practitioner. Those in cities have the advantage over their brethren in country towns, on account of receiving larger fees, and there being more service for somebody to perform. City practitioners of Great Britain and the continent are in the average receipt of far larger incomes than those similarly located in the United States; while those of the interior towns and villages there, fall below the corresponding class with us. London pays the largest sums to practitioners; but Paris, according to our recollection, gets advice and operations cheaper than New York or Boston. The majority of physicians are poorly paid in all civilized countries; so that the inducements for entering upon professional duties and responsibilities are hardly strong enough to warrant the undertaking, if an individual has high aspirations for property or position. Both of these are attainable, by various avenues, in half the time that could be acquired by the fatiguing labors of a mixed medical practice.—*Boston Medical and Surgical Journal*.

The *New York Medical Times* contains the following formulary for the preparation and use of a Styptic Balsam:

R.	Acid Sulphuric, (by weight),	z v
	Spts. Terebenth,	} f z ij
	Spts. Vin. Rect., <i>a a</i>	

Place the acid in a Wedgewood mortar, and add turpentine slowly, stirring it constantly with a pestle; then add the alcohol in the same manner, and continue stirring it until no more fumes arise, when it may be bottled, and should be stopped with a ground stopper.

It should be prepared from the purest materials; and when done, it should exhibit a dark but clear red color, like dark blood; but if it be a pale dirty red, it is unfit for use. The dose is forty drops, and the method of using as follows:

Put a teaspoon full of brown sugar in a common sized tea cup, and rub in 40 drops of the balsam until it is thoroughly incorporated, and then slowly stir in water until the cup is nearly full, when it should be immediately swallowed. Repeat at intervals of an hour, until three or four doses are taken, if necessary. Its use should be discontinued when fresh blood ceases to flow. It is highly recommended by Dr. James Warren for various kinds of hemorrhage.

CURE FOR TOOTHACHE BY EMETICS.—The pain caused by a carious tooth, observes Cesar Fredericq, of Ghent, is sufficient to induce the sufferer to try every means for relief. Of all topical odontalgics, creosote, as a cauter, appears to me to possess most advantage. But besides these remedies, there is too much neglected, in my opinion: I mean the use of emetics. Ipecacuanha, given in a vomitive dose, in cases of tooth ache, has been followed by a success wholly unexpected. It answered even in cases where the neuralgia has remained after the extraction of the tooth. Emetics constitute a valuable resource in cases of odontalgia without caries. There are many varieties of tooth ache. It may be symptomatic of other affections, or it may be produced by an ephemeral cause. Commonly the pain is attributed to the caries, but, if so, why should not the pain be permanent in a carious tooth? Why do not people suffer continuously? Some determinate cause must be at work for the production of pain; and this varies considerably. The author believes that gastric disturbance often coincides with odontalgia, and that the close sympathy which exists between the stomach and the brain, explains why a powerful impression made on the former should exert an influence on the nerves of the head.

ICE TO THE NECK IN CROUP.—Dr. Borchman proposes folded linen as a cravat, dipped in ice water, wrapped round the neck with small bladders containing fragments of ice applied to each side of the neck, while the limbs are covered with warm flannel, and kept so by bottles filled with hot water. These applications he renews every half hour. This treatment was continued in a case from 3 A. M. to 8 P. M., when the bladders of ice were omitted. It is stated that immediately after the first application, the heat of the head, agitation and distress diminished, the cough ceased, and the patient fell asleep.

A NEW COLLODION—*kolla, glue; eidos, resembling.*—This is a solution of shellac in hot alcohol. It is said to be more adhesive, will contract stronger while drying, is impermeable to water or oil, does not irritate the skin, and is cheaper than the solution of gun cotton in sulphuric ether, or common collodion.

Correspondence.

NEW YORK, April 3, 1854.

DR. HILL—*Dear Sir*:—My attention has just been called to an article in the Dental News Letter, over the signature of E. Parmley, headed "Awards at World's Fair"; and as three months must elapse before it can be answered through the same medium, permit me through the Recorder, to make a very brief statement in reference to said article; intending to answer it fully in the next number of the News Letter; but at present, I wish to say, that the article referred to is a tissue of *falsehood* and *misrepresentation* throughout.

He says, "J. G. Ambler, who, some years ago, exhibited a large gold medal in his show case at the fair, which medal, be it known, was not given as alleged, as an award of merit, but bought and paid for at a medal maker's in Reade street." * * * * This I pronounce an entire fabrication, entirely destitute of truth, and without a shadow of foundation to rest upon; for I never exhibited a medal of any kind, at any fair previous to that at the Crystal Palace, and I have reason to believe, and do believe that this assertion is a creation of the Doctor's own invention, from motives best known to himself.

He also says, "A statement was made, as we were informed, by this same individual to the commissioners or persons in office at the Palace, that he had seen Dr. Trenor and myself, and that we were perfectly satisfied and had agreed that another should be appointed, and the name of Dr. Foster, of Utica, being submitted, he was upon such representation appointed to act with the four already named." This is also false. When Dr. Smith, who was acting for the Commissioners, told me they would leave the matter to the committee, I said explicitly that if that was the case Dr. Foster would not be appointed.

He intimates that we received a medal of high distinction "for merely exhibiting the work of D. H. Porter or any one else." In answer to this unjust and uncalled for insinuation, I will merely say, that I stated distinctly to the committee, that the teeth themselves were made by others, but the mounting and setting was our own.

There are other statements contained in said article equally false and unjust, but I will defer further comments for a future time.

Yours truly, J. G. AMBLER.

Editorial.

WHAT SHALL BE DONE TO PRESERVE THE TEETH OF CHILDREN?

This is a question of grave importance, and challenges the attention of the physician as well as of that of the medico-dental practitioner; and we are not quite sure that the resources of dental hygiene are at present adequate to the exigencies involved in a question of this kind.

So far as local and external causes are concerned, caries of the teeth admits of a clear and satisfactory solution, and a course of treatment, at once rational and effectual, may easily be suggested. But back of all this and apart from these considerations lies the hidden trouble, or cause of trouble, which remains to be detected and dragged from its lurking place, where the full blaze of medical science may shine upon it.

The question involved in a thorough discussion of this subject embraces every consideration connected with the physical development and education of the individual. The digestive—nutritive—simulative and secretory functions in particular are involved, each of which are sufficiently important to engage the attention of the physiologist in its relations and bearings to the subject under consideration. But the discussion of this subject would require a volume instead of a brief editorial, and is therefore altogether impracticable in the present case. But may not something be done toward the immediate relief of the many thousands who are now suffering from the premature and wholesale destruction of the dental organs?

The fact is clear and admits of no disputation, that the teeth of our children are in a condition most deplorable—a condition demanding the utmost exertions on the part of our profession, and the careful and earnest attention of physicians.

When we see the *temporary* teeth of children crumble away and break down under the influence of caries, leaving nothing but black and unsightly fragments, with jagged edges standing out from the gums, and the gums themselves fretted, swollen, ulcerated and painful, and all this before the first half of the period for which they were intended to serve them is past, we conclude that there is something

radically defective somewhere. And yet, so common is this very thing, that neither the parents or medical advisers of these children give themselves any trouble about the matter; save perhaps, during occasional paroxysms of pain with which the child may be afflicted.

And how can it be expected with such a state of things that the rudimentary pulps of the second set shall be able to develop themselves in a perfect and satisfactory manner? The thing is impossible, and the result is just what might be expected, viz: an imperfect development of the maxillæ, and irregular and imperfect dentition. But a crowded and irregular denture is perhaps the smallest of the evils. The teeth themselves are chalky and soft—the elementary structure so exceedingly frail that, unless watched with great care, they fall a certain and speedy prey to the ravages of caries, before their number is half completed. Indeed, it is no unusual thing to see them decayed before they are fairly divested of the covering; which, by absorption, exposes some portion of the crown already attacked by the destructive action of caries. And the strictest care, as well as the most skillful treatment is necessary to preserve them even to adult years.

Now what can be done in such cases to prevent such a state of things? Are the services of the dental practitioner requisite, prior to the first eruption? Shall he take charge of the matter as soon as the child is born? Is this trouble purely constitutional, and will it admit of constitutional prophylactic treatment? Or is it the inevitable result of parental neglect and mismanagement—in other words, hereditary as to the child, admitting of no thorough remedy, save as we may be able to treat it through successive generations?

It will be seen that these questions dip deeply into medical philosophy and general as well as special physiology, and that they involve nothing less than the completest physical education of a human being, as well as the causes, immediate and remote, of the present deteriorated condition of the dental organism.

To a careful and earnest practitioner of our art, the aspect of the human teeth, as presented in the children of the present generation, is truly appalling. Their entire and complete loss, in a large proportion of cases, seems inevitable. Cases are continually falling under our observation of children from three to twelve or fourteen years of age, where the resources of our profession are taxed to the utmost to save the dental organs, and where nothing but the strictest attention on the

part of the parents, coupled with the most delicate professional attentions, can possibly save them from utter destruction. It is *some* relief to be sure, that artificial substitutes may provide against the more immediate and pressing inconveniences of such a condition—just as an artificial leg or eye will help out under other circumstances. But we confess that our feelings do revolt at the idea of children and youth having their mouths filled with these metallic and mineral appendages, when nature has made provision, in this respect, for all their necessities,

These marks of premature old age are scarcely to be found in any other circumstances connected with the development of the animal organism, and we find it extremely hard to reconcile ourselves to the idea that it *must* be so, in the instance before us.

The *hair* does not thus prematurely fall from the head. The *eyes* do not thus early become dim and sightless. The *bones* are not wont to lose their earthy constituents and crumble under the influence of molybdes ossium. And why should the teeth, which, from their office, nature and position should maintain their strength and solidity to the last, thus early crumble and fall by disease? Why should youth be robbed of one of its brightest ornaments, and the human face divested of its sweetest charms? There surely is a sin against nature somewhere, or these things would not be. And if the penalty may be supposed to be proportionate to the offence, we have a right to conclude that it is high time mankind were made to feel their guilt in this respect.

The *importance* of the teeth is too feebly apprehended, we have reason to believe, even by dentists themselves. They (the teeth) stand in the very vestibule of life. They are related to a series of functions of vast importance, and constitute the *first* link in a chain of operations essential to existence. If digestion is perverted at the start, how can the result be otherwise than disastrous?

But what shall be done?

We shall resume the subject in a future number.

THE SEASON.

The peculiarities of the season, so frequently marked by the prevalence of various diseases, is a subject of interest to the physician, and never escapes the observation of medical writers. Epidemic diseases of various kinds mark, by their prevalence, these peculiarities, and form

the subject of many a weighty volume. Atmospheric changes are noted with the most scrupulous care and exactness, and meteorological phenomena constitute the basis of numerous speculations.

But who supposes that any peculiarity of the season, weather or climate can produce a response from the dental organs as clear and noticeable as those which give rise to lung affections, bilious diseases, fevers of various kinds, such as are well known to prevail, under certain conditions of the atmosphere?

It is indeed understood that "a cold" may cause the teeth to ache severely—that exposure to dampness, wet feet, &c., may produce a paroxysm of odontalgia. But all this may occur without such exposure, and scarcely affords a clear and well defined manifestation of the laws referred to,

But we hesitate not to avow our belief that a *peculiar irritation*, a *marked susceptibility* in the dental organs, and quite unlike what we ordinarily witness, may be, and is occasionally manifested under the influence of certain atmospheric changes. And this irritability is as distinct as that of the lungs, liver, kidneys or nervous system.

Such, so far as our experience and observation is concerned, has been the past six months. Teeth, otherwise sound and healthy, have been the seat of exalted sensibility, and a peculiar irritation. Operations, ordinarily successful, have been attended with unusual difficulties, and in several instances signally failed. Nor can we attribute this result to a want of care and attention, but on the contrary, we have never been conscious of more pains-taking in order to insure success. And in many instances an aggravated train of symptoms have marked the progress of disease.

We throw out these few hints to call attention to the subject, and would be glad to know if members of our profession in other localities have been conscious of the same peculiarities at any time during the same period.

SUPERNUMERARY TEETH.

Two supernumerary dens. sapientiæ have recently fallen under our observation.

Miss C. of this place, aged about thirty-five years, requested us to examine a tooth, occupying the position of the right sup. dens. sapientiæ. We found it much decayed, and recommended its removal, which was accordingly done. But the roots of the teeth extracted

were unlike the ordinary roots of a dens. sapientiæ, and resembled much more those of the second molar, both in form and size. A day or two after its removal the lady called upon us again, remarking that we must have left some portion of the fang in the socket, as she could distinctly feel something there, and desired us to examine. We did so, and to our surprise found a small new tooth in process of development through the gum, in nearly the exact spot previously occupied by the tooth which we had so recently removed. The question then arose, had we removed the real dens. from the jaw? It must be so, for the first and second molars were still there. We then examined the opposite side of the jaw and found another supernumerary occupying relatively the same spot. Here the tooth was fairly and handsomely developed, and presented the appearance of a perfect cone, with the apex downward. A beautiful round tooth about the size of a small inferior cuspid, and very like one of those teeth, save that it appeared to be round, presenting as it depended from the superior jaw, a beautiful pearly cone, with its base upward.

We have rarely seen so singular a specimen of dentology as the above.

AN EDITOR'S VEXATIONS.

It would seem that an editor is expected to *know* every thing and *do* every thing. He may work for nothing and find himself, and yet people will complain. He must not only furnish the several numbers of the current Volume, but he must supply *back* numbers with which he has nothing to do, under penalty of losing what he has done. He must know where letters come from, and answer them, whether they have date or post mark. In short, to meet the absurd and ridiculous notions of some individuals he must be either a *witch* or a wizard.

The following will serve as a specimen of some of our correspondence. It was received April 10th, 1854. But whence did it come? We publish it *free of charge*.

DR. A. HILL—SIR:—I have withheld my subscription for the Recorder to get the back numbers, October, November and December. If you can forward them, do so immediately, and when received, I will send you two dollars: otherwise, I will return the numbers received. I have written to Dr. Allen one on this matter, and he does not give it a hearing.

Yours truly, * * * * *

LETTER FROM DR. ALLEN.

DEAR DOCTOR:—In your 1st No. you state that "Several communications have been received from subscribers, with reference to withholding the last No. of Vol. 7, in consequence of non-payment of subscription, avering that they have forwarded the money, for which no acknowledgment has been made." I ask your indulgence while I remind the former subscribers to the Recorder that I have, during the progress of each Volume, informed them in every number, that the terms were "*payable in advance*," and that towards the close of each Volume I have enclosed a printed slip, reminding them of their delinquency, and as a last resort been compelled to retain the last No. the more forcibly to impress upon them the fact of their negligence. Even after this I have often received letters stating that if I would send the last No. they would forward me the money—as if they were afraid to trust me for one No. when I had given them credit for eleven.

It is often the case that subscribers think they have paid for the present Volume, when they have only remitted money for the Volume before, so rapidly is the flight of time. In no instance, I believe, have I ever been assured that the money was sent me by mail for the payment of any Volume, without forwarding the index No., though I know of no reason why an Editor should take the whole risk when money is forwarded by mail. Editors have many reasons to complain of delinquent subscribers which I shall not enumerate. The fact that about one half of those who subscribed for the seventh Volume of the Recorder *are still indebted for it* speaks for itself.

May you find its finances in a much better condition at the close of the next Volume. Very respectfully, CHAS. C. ALLEN.

ESSENTIAL OIL OF TOBACCO.

It is said that the Essential Oil of Tobacco is a most powerful remedy for tooth-ache, but at the same time so dangerous as to be impracticable. Dr. J. L. Levison of England tried it in several cases, but abandoned its use because of the alarming results.

DENTAL AWARDS OF CRYSTAL PALACE.

Dr. E. Parmley is out in the Dental News Letter with a statement in regard to the operations of the Jury on Dental Exhibitions, which is extremely caustic. There are too many sparks in it not to take fire somewhere. So look out for music.

PIGGOT'S DENTAL CHEMISTRY AND METALLURGY.

This really elegant and timely addition to the library of the Dentist is from the pen of Dr. A. Snowden Piggot, M. D., "late Professor of Anatomy and Physiology in the University of Baltimore," and from the press of Lindsay & Blackiston, Philadelphia.

This work was undertaken by the author at the instance of some of the most talented and influential members of the profession, and has been consummated in a manner alike creditable to the author and the profession for whose more especial benefit it has been prepared. The *want* of such a work has produced it, and every Dentist should supply himself with a copy, inasmuch as it contains a large amount of information which cannot easily be obtained elsewhere. Numerous items contained in it are worth far more than the price of a volume.

COMMENCEMENT OF PHILADELPHIA DENTAL COLLEGE.

This flourishing institution held its second annual commencement on the 28th February, 1854.

The class of the session consisted of thirty four matriculants and nineteen graduates. The honorary degree was conferred upon the following gentlemen: John Tomes of London; J. G. Koehler, Schuylkill Haven, Pa.; J. Beck Goddard, Philadelphia; Chapin A. Harris, Baltimore; F. M. Dixon, Philadelphia; Charles Moore, Pottstown, Pa., and J. R. McCurdy, Philadelphia.

OHIO DENTAL COLLEGE COMMENCEMENT.

The commencement exercises of the Ohio College of Dental Surgery came off on the 22d of February last. The whole class numbered twenty three—graduates seven. The honorary degree was conferred on the following gentlemen: P. G. C. Hunt, Indianapolis, Ind.; M. De Camp, Mansfield, Ohio; J. W. Baxter, Warsaw, Ky.; Geo. Laurie, London, Eng.

PROF. J. ALLEN'S RESIGNATION AND REMOVAL.

We learn from the Dental Register of the West, that Dr. John Allen has resigned his Professorship of Operative Dentistry in the Ohio College of Dental Surgery, and removed to the city of New York. Dr. J. Taft, of Zenia, O., has been elected to fill the vacancy.

New York Dental Recorder:

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

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MAY, 1854.

No. 5.

From the American Journal of Dental Science.

CHEMISTRY FOR DENTISTS.

A LETTER TO THE SENIOR EDITOR.

MY DEAR DOCTOR:—It cannot fail to gratify those members of the dental profession who are really desirous to see it placed on a scientific basis, to learn that you have determined to introduce a Chemical Department into your Journal. It is well that the oldest dental periodical should take this step. The others probably will soon follow. At any rate, they ought so to do, for as dentists become better educated, mingle more with physicians, and feel the necessity of scientific knowledge, not only to advance their art, but even to retain the position they have assumed as members of a profession which is really a speciality of medicine, they will demand more and more from their teachers, their colleges, their text books and their journals.

It is to be expected that objections will be made to your course, that sneers will be abundantly thrown out, that small and feeble ridicule will be showered down upon you, but I trust that you will not allow such little things to move you. You have already fought through many innovations, every one of which has redounded to the advantage of the profession, and I hope that you will insist on this with a pertinacity that will bear down this petty and ignorant opposition.

The cry of *cui bono* has already been raised. Hundreds of dentists are unable to see how they can secure more patients and pocket more dollars by possessing a knowledge of chemistry than they could, if destitute of such information. They look at the mere mechanical parts of dentistry and triumphantly ask how chemistry is applicable to them? They can file a tooth, or pull a tooth, or plug a tooth, without any acquaintance with this beautiful science, and that is

enough for them. They want nothing more—they will oppose anything more.

But these people do not see that they are retrograding and carrying dentistry back with them to what it was many years ago. They are reducing it again to a mere handicraft, a series of mechanical manipulations without thought or science, and so undoing all that has been done with so much labor and such zeal, within the last twenty years. The question proposed now to dentists, is: Are you content to rank yourselves with the mere artizans, or will you claim a higher position? Will you enroll yourselves among the liberal professions?

The latter can only be done by making dentistry what its intelligent members claim that it is—a speciality of medicine. The teeth have their physiology, their pathology, their therapeutics, their hygiene, just as any other set of organs have. If, then, we should have aurists and oculists, who are received and recognized as men of science by physicians, why should we not have dentists occupying the same position? But be assured, the medical profession, with its learning, its centuries of progress, its high standing in the world, its extensive scope, its varied acquirements, will not accept any specialists who are not themselves scientific. It regards with scorn any mere mechanical act that claims to affiliate itself with it. The physician would as soon think of meeting his cutler upon terms of equality, as one of these ignorant dentists.

There are dentists, however, who clearly understand their true position. Men of scientific attainments themselves, they appreciate them in others, and know how to avail themselves of those truths which lie, as it were, on the outside of their profession. They see that, in making the claim for dentistry, that it shall be considered a speciality of medicine; they take upon themselves to investigate all the questions of physiology, pathology, &c., that can have any connection with the teeth.

To these men, chemistry is all-important. They wish to learn how the various alterations in digestion may affect the nutrition of the teeth. They must first learn, manifestly, what is the composition of an average healthy tooth; how this varies at different ages, in the two sexes, under different circumstances. They must also understand thoroughly the chemical processes of digestion and nutrition, and must look further into the chemistry of the food. The reciprocal action of the teeth and stomach upon one another is too manifest to

need any illustration. Acid matters rejected from the stomach must act upon the teeth. There is, however, a more important relation which needs to be carefully studied and thoroughly comprehended.

Nutrition, in the early periods of life may be variously impaired. This is manifest from the existence of the various blood diseases. Some of these cachexias are communicated to the foetus in utero by the diseased blood of the mother. A tuberculous mother gives birth to tuberculous children. The badly organized blood of the parent circulates through the growing tissues and leaves in them its aplastic deposits, or at least the tendency to form them. This morbid condition must, of course, affect all the tissues. The brain suffers, as we learn from the fact that the children of such mothers are extremely liable to hydrocephalus. The glandular system suffers, as shown by the scrofula which so commonly distresses the infancy of these unfortunates. To name no more, the teeth are affected, as every one knows who has paid any attention to the characteristics of a tuberculous diathesis to be found in these organs. Thus we learn, that the nutrition of the teeth is influenced while the foetus is still in the womb of its mother. The history of such teeth must differ widely from that of those which are perfectly normal in their formation. How are we to learn wherein they differ? Who is to tell us the peculiarity of their composition? The chemist alone. It is to chemistry that we must apply for such information, and if it is not sufficiently learned to answer us, we must direct its inquiries in the proper channel.

Still further, if the food of the newly born infant does not contain the proper proportions of phosphate and other salts, it is very manifest that the development of bones, teeth and nerves will be impossible. We shall have an excess of animal matter and a deficiency of the earths. The consequences of such an error in diet are too manifest to need any explanation. It is clear, however, that there is but one mode to determine this question, and that is to acquire first a thorough knowledge of the chemistry of food.

The food, however, may be sufficient in quantity and suitable in quality, but there may be some derangement in the digestive organs which will prevent it from being properly introduced into the system. It may ferment in the stomach and produce various compounds, not only innutritious, but actually injurious to the economy. All the organs must suffer from such an unfortunate taint at the fountain head. Here again we need the chemist to explain to us the nature of

these alterations of digestion which thus vitiate the nutrition of the whole organism and entail disorder upon every part.

Supposing, however, that these inquiries be dismissed as too deep for ordinary investigation, there still remains the important practical fact, that be the causes what they may, there is a marked difference among the different varieties of teeth. Some are hard and resisting; others are chalky and friable. Some decay with great rapidity; others resist the ordinary agents of destruction for the whole time of a long life. The most exclusively practical man will not deny that the recognition of these varieties and the determination of the probable duration of any given set of organs is a matter of the utmost importance. The cause of decay must be either in the teeth themselves or in the secretions and other fluids which surround them, or what is still more likely, in both. Thus a tooth liable to decay will be destroyed by the common acids of the mouth, and a mouth unusually acid will more rapidly corrode a sound tooth. If these two elements of destruction be combined, the progress of disease will of course be much more rapid.

Now, how are we to get any information in regard to this matter? Manifestly from the chemist alone. It is he who must analyze for us the teeth and the fluids around them, and point out to us the composition of either which produces the result under consideration.

But even should this knowledge be considered unnecessary, it cannot surely be urged that the study of the cause of caries is a piece of mere scientific trifling. "Remove the cause and the effect ceases," is an axiom as old as science. Prevention or prophylaxis is based entirely upon etiology. If our ideas of the cause of any disease be erroneous, our measures of prevention will be futile. Now it is generally regarded as an established fact, that caries is a chemical change induced in the teeth by the action of corrosive agents? Let us know them that we may remove them or protect the teeth from their action. This opens up an examination of all the fluids in the mouth with their changes by decay or disease. Now it is well known that the various articles of our food, during decomposition, generate a great variety of acids, each one of which is a more or less energetic solvent of phosphate of lime, and consequently a destroyer of the teeth. The chemist alone can measure the activity of these agents, and estimate their destructive power, or even determine whether they possess any such power at all. There is a still further question of much import-

ance to the practical dentist. How are these acids effected by the fluids of the mouth? All these questions, the direct practical importance of which it is impossible for the dullest tooth-scraper to avoid perceiving, can be answered only by the chemist.

If we turn to the department of mechanical dentistry we find that it is half made up of chemistry. What causes the occasional crystalline structure of gold, so that it breaks down under the rolls? This surely is a question of some importance to the practical man, who desires to lose neither time nor material. This crystalline compound is exceedingly annoying and it is very desirable to avoid it. It can only be done by understanding the nature of alloys.

Again, it is well known that California gold, directly worked, is not a little injurious to the rolls. This difficulty also exists to some extent in the coin made from this gold. Why is this and how is it to be avoided? The answer to this question must come from the chemist.

Many other questions connected with alloys require the light which chemistry alone can throw upon them. The metals which render gold brittle, the mode of purifying gold, the separation more especially of tin which is peculiarly troublesome, must all be thoroughly understood before a man has a right to lay claim to the character of a good mechanical dentist, because all of this knowledge is directly connected with the very elements of his art.

Still further, we have a thousand questions connected with the reaction of the earths upon one another, the effect of the metallic oxyds upon each other and upon the earths at the high heat of a baking furnace, the changes in these substances induced by the same heat, the methods of obtaining them in perfect purity, the effects of different impurities in the resulting tints, the modes of detecting adulterations, &c. These points are absolutely necessary to be known by the manufacturer of artificial teeth who would work with any certainty, and whose operations are to approach any thing like scientific accuracy. Experiment may indeed reveal these things, but there is a vast difference in economy of time between experiments instituted at random by a man ignorant of chemistry, and those designed by one having a competent acquaintance with that science.

These are facts which I presume no unprejudiced man who knows any thing about the requirements of dentistry will presume to deny. Those who persevere, therefore, in their sneers at chemistry as con-

ected with dentistry, seem to me to be acting very much like those old farmers who talked so much against book agriculture. They had some weight at first, on account of their reputation as practical men, but very soon it was found that book farmers might also be practical, and that they possessed besides an advantage over and above their practical skill, which enabled them to apply it without loss, viz: a scientific knowledge of the principles upon which their art was based.

What has been the result? The mere practical farmer has been crowded out; he has become obsolete, a sort of monument of old fog-ism, while scientific agriculture is rising every day higher and higher. So it will be, I venture to predict, with the so called practical dentists who are setting their faces against the introduction of chemical science. The advancement of the art will leave them hopelessly in the rear.

Persevere, then, I pray you, in the course you have laid out for yourself. Though you may encounter opposition at first, you must ultimately triumph, for your cause is a good one. S.

NEW YORK, October 16th, 1853.

HUNTINGTON, Pa., 1854.

GENTLEMEN:—I send you a page from my journal, which, if you see proper to publish, you are at liberty to do so.

Yours, &c., R. ALLISON MILLER, D. D. S.

REMOVAL OF A LARGE PORTION OF THE SUPERIOR MAXILLARY BONE AND FLOOR OF THE ANTRUM.

September 22d, 1853, 12 o'clock noon. Mr. M. (farmer, age 23,) called at my office and requested me to extract two teeth for him, which he said were quite loose. He stated that on the 20th, a *home dentist*, his neighbor, had attempted to remove the second right superior molar with the key, and in so doing had loosened it and the dens sapientia. The *doctor* now informed his patient that the tooth he wished extracted had grown fast to the one back of it, and it would be necessary to allow the offending organ to remain, or remove both. Unwilling to bear the pain any longer, Mr. M. requested the operator to proceed. With a flourish he took hold of the teeth with a pair of *shoe pincers* and wrenched violently, but in vain. These efforts caused the blood to flow freely from his right nostril, and the operator becoming alarmed, declared that "the teeth were not only

grown fast together, but had grown fast to the jaw bone, and he *wouldn't* take them out!"

On examination, I discovered the case to be a much more serious one than Mr. M. supposed, his jaw being seriously fractured. The first molar had been removed six years previous to this occurrence and the second now occupied its place. The fracture commenced immediately in front of the anterior buccal fang of the second molar, and about a third of an inch in front of the palatine fang, and extended up to and included the floor of the antrum highmorianum and back to the pterygoid process of the sphenoid bone. He stated that he had more or less bleeding from the nose and mouth ever since the effort at extraction was made, and was spitting blood at that time. I gave him a correct statement of his case and advised the removal of the piece, as it was entirely broken off, and held in the mouth only by its fleshy attachments. He appeared encouraged on finding this practicable, but said he had been to a physician the day previous, who told him to let it alone, it would grow fast, but did nothing to stop the blood or keep the piece to its proper place. Not wishing to pursue a course in direct opposition to the advice of his physician without consulting another, I called in my esteemed friend Dr. B ——. The doctor's opinion agreeing with mine, I immediately cut away the soft parts and removed the piece with my fingers. Blood now flowed pretty freely, though not to an alarming degree, for a few minutes, when it very considerably abated. I then saturated a piece of cotton in a solution of tannin in tincture of myrrh, and introduced it firmly into the cavity, and the hemorrhage ceased. After giving him the necessary advice in regard to the care he should take of himself, he left for the house of a friend, where he remained until 5 o'clock, when the blood commenced to flow rapidly. He called at my office half an hour after, when I found the hemorrhage really alarming. I removed the coagulum and cotton and packed a strip of linen, saturated in a strong solution of nitrate of silver, firmly into the cavity, and placing a piece of cork between the linen and inferior molars, tied a bandage under his jaw and over his head. Half an hour elapsed and no blood made its appearance. The patient being very weak, I drove him to his quarters for the night. I have seen him repeatedly since—he is doing well.

This is another case going to show that an operation safe and easy in the hands of a skillful operator may become not only troublesome

but dangerous when intrusted to "individuals possessing neither knowledge of its principles, nor skill in its performance."—*Dental News Letter*.

ANOMALIES IN DENTAL DEVELOPMENT.

EDITORS DENTAL NEWS LETTER—*Gentlemen*:—At considerable intervals I find in your publication short statements of anomalies in dental development. Allow me to acquaint you with two deviations from the ordinary course of nature; one of which at least is so unique that I have never heard of its counterpart. About a year since a gentleman of twenty-three years called on me to have several teeth filled; before taking the chair, he remarked that he yet had the teeth of first dentition and none others; adding, that his mother had frequently told him such was the fact. On examining his mouth, I found that the ten anterior teeth in each jaw were of a size somewhat larger than the average of deciduous teeth, while otherwise they partook decidedly of the characteristics of permanent teeth, the bicusps being in their proper positions. The molars were of about the average size of permanent molars.

The other case was that of a child of two years, whose right lower central and lateral incisors were perfectly united, presenting an even labial surface; while a scarce perceptible indentation in the cutting edge indicated where the approximal surfaces should have been. An extract from Talma's work, published in the last, (No. 1, Vol. VII.) *Dental News Letter*, speaks of very rarely occurring similar cases in permanent incisors. Very respectfully, at your service,

H. GERHART, Dentist.

HARDENING CAST STEEL FOR CUTTING.—Kieser, of Issy, in Switzerland, prepares admirably hardened razors, pen-knives, &c., from English cast-steel, by plunging the blades, at a dark, cherry-red heat, into a bath made of fourteen parts, by measure, of yellow rosin in fine powder, two parts of fish oil, and one part hot melted tallow; they are then allowed to cool perfectly, and without wiping them, are reheated to a low red heat, and immersed in water in the usual way of tempering such articles. The edge of the blade treated in this manner is said to be very fine, and the hardening more uniformly done than by any other process.—*London Artisan*.

FREAK OF NATURE.

MESSRS. EDITORS:—Your solicitation to the different members of the profession, has induced one that has never contributed to your valuable journal, to examine his case book, to see if there was anything that would in the least degree advance the upward tendencies of the dental profession; and, in citing this case, I do so more particularly to encourage the young America of the profession.

A lady, aged, say 50 years, from a neighboring town, presented her mouth for examination, by the advice of two prominent medical men of that region of country, for an enlargement of the palatine surface. Supposing that an indolent tumor, or kindred disease, was developing itself, requiring the application of the surgeon's knife, the lady had several plates fitted to and covering the roof of the mouth; but in consequence of the continued enlargement of this tumor, had not been able to wear them for any length of time. I was induced to ask her to allow me to cut into the enlargement, knowing there was either a tooth or tumor presenting, and suspecting the latter, much to my surprise a beautiful canine tooth presented itself, and on removal was perfect. *Where* this tooth had remained until this period of life remains to be seen, or was it a freak of nature? The peculiar position, 1 1-2 inch from the alveola border, five or six lines to the right of the mesial line, and presenting from within outwards, so that a pair of straight, narrow-beaked forceps was employed for its removal. I have frequently read and heard of a third set of teeth presenting themselves, but this is the nearest approach to that phenomenon that I have ever seen; if the remaining teeth should present in that unruly manner, no doubt the lady will exclaim, "from such, good Lord, deliver us."

H.

REMARKS ON THE ABOVE.—We congratulate our correspondent H. upon his first appearance in our journal, and we hope he will *look* into his case book again. We do not think the case cited was a freak of nature, we have a specimen among our collection of heads, where a canine tooth is lying in a similar position, which it has doubtless taken from the too early extraction of the deciduous canine tooth, which allowed the lateral to fall back against the first bicuspid, and instead of the canine finding its way through the gum on the anterior surface of the dental arch, it took a backward direction, and when fully grown did not cut the gum as when they develope on the anterior surface of the arch, but merely produced a protrusion of the gum, it

would require the tooth to be much longer than they usually are to permeate the gum in that direction, and they lie obliquely, too, which is against their eruption. We have seen many cases of this kind. A patient of a friend of ours, nine years ago, applied to us for a whole upper set of teeth, except the third molars, all the the rest having been extracted for some time. We observed a tumor in the roof of the mouth, or near the posterior base of the alveolar border, and a little to the right of the mesial line; we at once pronounced this to be the result of the non-eruption of a canine tooth, lying obliquely under the gum, and unless this were removed it would be the cause of future trouble. This, however, our patient would not agree to, as they feared it was, or might be a malignant tumor. Consequently, the artificial denture was constructed and placed in the mouth, and was worn for four or five years, when the said tumor commenced to be the cause of great trouble and solicitude. Upon examining the parts, we discovered that the gum had become absorbed between the plate and the tooth, so as to bring them both in contact with each other, and it appeared that the tooth had undergone sufficient decay to expose the pulp, and it becoming inflamed the patient was really suffering from a genuine tooth-ache. It was now proposed, as a matter of course, to extract it, as it had become somewhat loosened in its bed by the strong impingement of the plate upon it, which was favored by the absorption of the surrounding gum, but in this we were baffled for a long time, by the fears of our patient, and who was sure also that it was "*jaw bone*" instead of a tooth. They were obliged, however, from extreme suffering, to submit to its extraction. It presented an interesting appearance, as it was not altogether decay that caused an exposure of the pulp, but absorption of the enamel and dentine seemed to have taken place also; the absorption must have taken place outside, by the action of the gum, at least so it would appear. It presents a very uneven surface, as though the absorption had commenced in spots. We have this specimen in our cabinet, and it can be seen at any time. In another instance, of a similar kind, when the tooth cut through to the plate, we cut out a hole in it, large enough to let the tooth come through, which it did in a short time, the gum healed kindly around it, and it now subserves the purpose of aiding, in the absence of a former tooth, to support a partial set of artificial teeth, by attaching to it a gold band.—*Dental News Letter*.

BEST METHOD OF CLEANING TEETH.

We copy the following extracts from Leslie's report of the discussions of the Mississippi Valley Association of Dental Surgeons :

"Best method of cleaning teeth and removing 'green stain,' deep seated, from the teeth; also, the best article to be used for that purpose."

Dr. Griffith said: He first took a sharp instrument and removed all he could with it; this he followed with slips of pumice stone; he then finished off with some polishing powder, say chalk applied by pine sticks. But one of the best things he had found for the removal of this stain, was an article, the value of which he discovered while practicing in South Carolina; it also made a most excellent dentifrice. This was the ashes of the husk of the rice plant. Its mechanical action is rapid.

Dr. Ulrey prefers the use of pumice stone and alcohol, applied with wood, as the instrument for the removal of the green stain. Has in some instances had to remove nearly all the enamel before accomplishing its perfect removal.

Dr. Allen has been in the habit of using diluted muriatic acid in cleaning the teeth, being careful to follow it immediately with an alkali, and believes, that with care, this practice may be pursued with impunity. To neutralize the acid, he uses fine Windsor soap or soda. Done neatly, the public may be kept *ignorant* of the use of the acid. Said he could use it so as not to injure the tooth, by leaving it to operate just long enough to act on the foreign substance.

Dr. Bonsal deprecated the use of acids for this purpose. His practice is to remove it with pumice stone.

Dr. Griffith disapproved of the use of acids, and thought the use of pumice should be guarded. In illustration of its injudicious use, he stated he was once consulted by a lady, a relative of Commodore Porter. She had been advised by Dr. Castle, of Baltimore, to use pumice as a dentifrice, and by its use she had, when he saw her, cut away the labial surface of the incisors, until the teeth were exceedingly sensitive.

Dr. Ayres thought it important to trace the chemical phenomena producing the stain; we might then be enabled philosophically to prepare an agent for its removal. He had heard the celebrated Professor Dudley, of Transylvania College, inculcate the doctrine, that the deposition of tartar on the teeth indicated a change

in the system, which if removed, would produce secretions so altered as themselves to be the means sufficient for its removal by solution. Dr. D. taught that the earthy secretions in the kidneys and bladder were similar in chemical formation, and should be prevented by similar means. Dr. Ayres uses pumice freely on twigs of yellow poplar. He was not prepared to say whether this deposit should be attributed to an acid state of the secretions or not.

Dr. H. R. Smith uses rotten stone and pumice a good deal for the removal of the green stain. Was decidedly opposed to the use of acids on the teeth; he could not see how injury could be avoided.

Dr. Leslie thought it important in arriving at a correct opinion on this subject, that we first settle, whether the "green stain" be a deposit on the tooth or a staining of the substance of the tooth in the form of a dye. His own practice had been based on the supposition that it is a deposit, and that the hard deposit was made up of the same ingredients as the soft; that it did not enter the substance of the tooth until the surface was injured by the ordinary destructive agents. Viewing it, then, in either case, as a substance to be removed, he thought that way the best which would leave the smoothest surface, and do it the speediest. This, he believed, was to be obtained best by the edge of a sharp cutting instrument, followed by some polishing powder or substance; he preferred scotch stone; sometimes he entrusted the latter part of the operation to the patient—a ten minutes use of powder and brush, in most cases, being sufficient—in more important ones the burnisher adds much to the improvement of the surface. He would not attempt to decide what causes operate to produce this deposit, but thought an acid state of the fluids would not be found when the deposit was hard and black. When this and the surface of the teeth under it were partly decomposed, would consider it to indicate the action of acid. From recent observation he was inclined to believe we had too much overlooked the action of the abnormal secretions of the gums. He had enjoyed a very favorable opportunity of watching one case belonging to a class recently pointed out by an anonymous writer, viz. Scrutator. It was a very clear case of the type. When first observed, there was the yellow line of ulceration about half a line wide, pouring its secretion down on the superior incisors, which, up to this time, were white and clean, but which now rapidly assumed a yellow tint just below the ulcer. This state continued for a couple of weeks, the case being closely watched, but no-

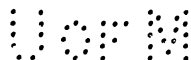
thing done to arrest it. This course was adopted *that some tangible results might be arrived at*. By this time the surface attacked was a dirty brown, and the enamel decomposed across the surface of the teeth for about the width of a line and a half, being deepest in the centre of the teeth and vanishing towards the approximal surfaces—the left lateral incisor being the most injured. About the end of the third week, nothing having been done locally or constitutionally to counteract the disease, it was observed that the yellow ulcerating line of gum had changed its appearance. Its color now was natural and its acrid discharge arrested. This case evidently owed its origin to a *constitutional derangement*, (“not to candy or calomel,”) the manner of removal of which is beautifully illustrative of the existence of the *vis medicatrix naturæ*. It may possibly be also illustrative of Prof. Dudley’s idea, but it certainly, so far as one case goes, very fully supports the theory of “Scrutator.”

The treatment of these teeth afterwards, was, in a few days, to remove with a sharp instrument, all the decomposed portion and polish them. Since then there has been no return of the disease, and *consequently* no further progress of the decay.

Regarding the suggestion thrown out by some members that it was probable that dentifrices might be prepared for use in cases having a tendency to the deposit under consideration, and which would prevent such deposit, the fluids of the mouth being acid or alkaline, as may be proven by test paper. He would say, that he thought the use of alkalies in dentifrices was not as guarded as it ought to be. It seemed that many overlooked the effect of such agents on the animal portion of the teeth, which of course is freely exposed to this affinity wherever decay is progressing.

It would be safest to combine in tooth-powders in general use, no more neutralizer than creta preparata. This combined with an astringent will accomplish the chief results to be derived in a dentifrice, equally so with those that are formed of six or eight ingredients. Of course no objections are had to a little matter to throw a blush over the chalk.

Dr. Ulrey thought the green stain had an acid origin. He endeavored always to impress upon his patients the importance of the constant use of the brush and a good dentifrice. He was fully satisfied the most important period of the day for cleaning the teeth was just before retiring to sleep, as acids left in the mouth have then undisturbed possession for hours.



Dr. Griffith said he thought the stain should be considered as a deposit, and believed it should be attributed to an acid origin.

Dr. Watt did not believe that the presence of holes in the enamel mentioned by some as accompanying this stain or deposit, proved that it had an acid origin, but only might be considered as proof of the presence of an acid combined with it.

Dr. Ayres uses an instrument when the enamel is softened. He prefers a tooth void of enamel to one with a mushy surface.

Dr. Peebles did not believe acids could be used with safety for the removal of the green stain—prefers the instrument and some polishing substance. Had found that this stain was confined to persons under mature age.

Dr. Taft thought it well to inquire into the action of the ashes of the rice plant mentioned by Dr. Griffith. If its action was so much more rapid than any other agent the doctor had met with, it might be attributable to some chemical affinity. The action of the ashes were doubtless alkaline, and if ashes entered into the formation of the stain the chemical effect was easily traceable. Then there was the mechanical action, which is said to be great, doubtless owing to the silicia entering into the formation of the husk of the berry.

The origin of this deposit he thought somewhat obscure, but inclined to the belief that it results from an acid state of the fluids.

MORBID SENSIBILITY OF DENTINE.

Different practitioners adopt different means to allay the morbid sensibility of dentine, preparatory to filling a tooth, or, after the use of the file in separating teeth.

Dr. Griffith, of the Mississippi Valley Association, "Has always found entire safety in the use of arsenic, when combined with charcoal. This was his mode of treating very sensitive teeth, and he could confidently recommend it." But the Dr. does not explain the mode of its preparation and use.

Dr. Goddard was not satisfied with the use of arsenic and cobalt.

Dr. Allen "Had found gum-camphor and alcohol, and also a solution of tannin in alcohol valuable" for this purpose.

Dr. Peebles uses "a burnisher slightly heated," where tenderness follows the use of the file. Cold burnishes was sufficient in many cases. His object is to close up the pores of the dentine and prevent



the egress of irritating fluids. Dr. Taylor sometimes makes use of the burnisher for the removal of sensibility. "He has met with great success in the use of nitrate argenti when great tenderness of the dentine existed. He had found this substance very useful, when the clasps of a plate had been the cause."—*Vide* Leslie's Report, April No. American Journal.

Prof. Arthur "recommends the use of cobalt for destroying morbid sensibility of dentine. He has used it for several years, and believes it to be as certain in its effects as arsenious acid and less liable to injure the pulp of a tooth. It is used in the form of a brownish black oxide, reduced to a fine powder, and applied to the tooth in the same manner as arsenious acid."

Prof. Harris of Baltimore seems to give the preference to chloride of zinc. He thus speaks of it in the April No. of the Journal:

"For the destruction merely of morbid sensibility of the solid structures of a tooth, chloride of zinc, according to my experience, although somewhat less certain in its effects, is superior to any preparation dependant for its active properties upon the presence of arsenic. With this agent it rarely happens that more than five minutes are required to obtain the desired effect. Although a powerful escharotic, it does not, as all arsenical preparations are liable to do, produce any deleterious effect on the pulp of the tooth. When first applied it excites a sensation of heat, followed by burning pain, but these soon subside, and on removing it from the tooth, the parts of the cavity with which it was in contact, will, in a large majority of the cases, be found totally insensible to the touch of an instrument. Dr. F. N. Seaburg, in the Dental Times, relates a case in which he applied it directly to the exposed pulp of an aching tooth. The pain, which, at first, was increased, soon subsided, and after removing the chloride, the tooth was filled in the usual way with no inconvenience to the patient.

"The chloride may be applied directly to the cavity of a sensitive tooth, without being combined with any other substance, on a little raw cotton or lint, or it may be made into a paste by mixing it with an equal quantity of flour, the moisture which it absorbs from the atmosphere being sufficient for the formation of the paste, or it may be mixed with a little pure anhydrous sulphate of lime in an impalpable powder, and then applied to the tooth. But before this is done as much of the decomposed dentine as possible should be removed, and

the application should be held firmly in contact with the part of the cavity upon which it is desired that it should act. This may be done by filling the cavity after it has been put in, with softened wax or raw cotton. The chloride may remain in the tooth from five to ten minutes, or until the burning sensation produced by it ceases. A single application will generally suffice to destroy the sensibility of the walls of the cavity to a sufficient depth to enable the operator to remove any remaining portions of decayed dentine without pain, and to obtund the vitality of the floor at the bottom so much as to prevent the transmission of impressions of heat and cold to the pulp. A second, and even a third application, however, will sometime be required.

"In all the cases in which I have used this agent, it has only failed in one instance to produce the desired effect, but as I rarely find it necessary to make any application to a tooth for the purpose of destroying morbid sensibility in partially decomposed dentine, previously to removing it, and as I prefer, for the prevention of irritation of the pulp from impressions of heat and cold, placing a non-conducting substance on the bottom of the cavity, before introducing the filling, I have not used it very often. Even in the cases in which I did employ it, I was induced to do so more as a matter of experiment than from any practical advantage I hoped to derive from it."

NEW METHOD OF SUPPORTING ARTIFICIAL TEETH.

The American Journal of Dental Science for October, 1853, contains an article from the pen of Dr. Wm. Hunter, of Cincinnati, O., entitled "Another European Principle Americanized." Intended by its author to illustrate a new method of retaining gold plates in their position in the mouth by means of compressed wood, held in gold tubes, and so constructed as to press against the teeth, thus holding the plate firmly in the mouth, without the use of clasps. In the April No. of the American Journal we notice an article from the pen of Charles Stokes, M. R. C. S., of London, Eng., claiming priority for this invention, and illustrating his method of using the same. The same plan was presented to our notice some year or two since by Dr. Smith of New Orleans. How long he had used it or where he first obtained the hint which resulted in the adoption of this plan we cannot say, but we know the plan was the same.—[ED. RECORDER.]



Correspondence.

TO DR. A. HILL—*My Dear Sir*:—In speaking of my letter published last month in the Dental News Letter in relation to awards on Dentistry at the Crystal Palace J. G. Ambler says “it is a tissue of *falsehood* and *misrepresentation* throughout.” In that letter I state that “J. G. Ambler some years ago exhibited a large gold medal in his show case at the Fair, which medal was not given as alleged as an award of merit, but bought and paid for,” &c. J. G. Ambler says in his published letter, “This I pronounce an entire fabrication, utterly destitute of truth, and without a shadow of foundation to rest upon, for I never exhibited a medal of any kind at any Fair previous to that of the Crystal Palace,” &c.

I said, J. G. Ambler (the nephew and pupil of D. C. Ambler,) exhibited the medal, because I saw him one evening standing by a show case at the Fair at Niblo’s Garden showing this medal to the crowd with “*gold medal premium teeth*.” Now this same gold medal was first shown to me by D. C. Ambler, the uncle, (when it was not yet inscribed, fresh from the maker’s hand,) who said it was a gift to himself from the American Institute, but hearing it was not, but that it was paid for by D. C. Ambler, I, on the evening in question, spoke to him of the exceedingly disgraceful and unprofessional character of such a proceeding, when he admitted he did pay for the medal. I again affirm, having abundant proof that this identical medal was in a show case, exhibited and shown by J. G. Ambler, the writer of the letter published in your last monthly Recorder. Dr. C. C. Allen also informed Dr. Trenor and myself that D. C. Ambler told him that he paid for the medal.

J. G. Ambler in his letter published in the Recorder says, “He (Parmlly) intimates that we received a medal of high distinction for merely exhibiting the work of D. H. Porter or any one else.” In answer to this unjust and uncalled for insinuation I will merely say that I stated distinctly to the committee that the teeth themselves were made by others, but the mounting and setting was our own.”

J. G. Ambler did not give to any one of the committee that I am

aware of (and as the following testimony will prove,) the slightest intimation that any person but himself and partner, Dr. Avery, had any thing to do in making or producing any part or portion of the specimens he exhibited. Dr. T. L. Buckingham, one of the committee, says in his written testimony that "I was told by one of the exhibitors, *Mr. Ambler*, that they (Avery & Ambler) manufactured all the teeth and put them up with their own hands." Dr. Buckingham farther says—"I enquired particularly who manufactured the teeth, not only in his (Ambler's) case, but in all the cases, and I distinctly heard him (Ambler) say that either he or Dr. Avery did all the work." After reading your remarks in the Recorder, I addressed a note of enquiry to Dr. D. H. Porter, who says in reply: "Dr. Ambler informed me that three sets of the blocks made by me for him were exhibited in his collection at the Crystal Palace." Signed, D. H. Porter.

In order to know distinctly and definitely what understanding Dr. Trenor, the chairman of our committee, had from J. G. Ambler's statement to the committee, I addressed to him a note, and his reply, which I also annex, is conclusive as to the truth and correctness of J. G. Ambler's statement published in the Dental Recorder:

No. 1 Bond St., May 6th, 1854.

MY DEAR SIR:—Will you please to say whether we were or were not informed that J. G. Ambler had told persons in office at the Crystal Palace that all the members of the committee on Dentistry had requested or agreed that another person should be added to that committee.

Will you also please say whether J. G. Ambler informed the committee that any person except himself and partner, Dr. Avery, had any thing to do with designing, constructing, making, supplying, or finishing any part or portion of any one of the specimens exhibited by himself at the Crystal Palace, upon which he claimed award,

And greatly oblige, very truly yours, E. PARMLY.

To JOHN TRENOR, M. D., chairman, &c.

Dr. Trenor's answer to the foregoing:

MY DEAR SIR:—In reply to your enquiries, I have the pleasure of stating that when the *full* committee on Dentistry first met me at the Crystal Palace, they were told that another member had been added, because this had been requested by all those then on that committee, and the individual who had communicated this request, though not then named, was plainly enough indicated; but, on a subsequent occasion, Mr. J. G. Ambler was asserted to have been the person who had made that statement.

1854

With respect to your second enquiry, I have to observe, that the only inference that could be drawn from the remarks of Dr. J. G. Ambler was, that he and his partner, Dr. Avery, had themselves done all the work in mechanical dentistry which their case contained.

Yours very truly, JOHN TRENOR.

Dr. E. PARMLY, May 8th, 1854.

Permit me to thank you for your courtesy in acceding to my request to publish my reply. J. G. Ambler having commenced a law suit against me, I am happy in saying we shall have a much better opportunity of establishing the truth of our respective statements in a court of justice, than we possibly can have in the Dental Recorder, and where I pledge you beforehand to substantiate in strictest truth every word of the "*tissue of falsehood and misrepresentation.*"

Very respectfully and truly yours, E. PARMLY.

The following communication was intended for insertion in the March No. of the Recorder, but was omitted through a misunderstanding. It is now published at the request of Messrs. Ambler & Avery.—ED. RECORDER.

DR. HILL—*Dear Sir*:—Permit us to make the following corrections to your report of the awards, &c., of the Crystal Palace, New York.

We are officially informed that the award to Ambler & Avery, though originally written "for the largest collection of Specimens of Mechanical Dentistry," was corrected so as to read, "for Specimens of Mechanical Dentistry, which correction was overlooked in the published list. You of course are not supposed to know this, therefore the error was not yours. You say that the teeth in this case (Ambler & Avery's) were manufactured by Dr. D. H. Porter, &c. The natural inference of which is, that we exhibited his work, instead of our own, which was not the case. The facts are simply these, (as will be seen by the annexed letter to the Jury.)* We exhibited specimens of Mechanical Dentistry, Instruments, &c., used in producing the improvements claimed as our own, (*but freely given to the profession.*)

The teeth used by us were made by various manufacturers, Jones, White & Co., Alcock, Porter, &c., *and was so stated to the Jury.*

You say the wording of the awards is equivocal, &c., but with that we have nothing to do, our only object being to *set ourselves right before the profession.* Yours in haste,

AMBLER & AVERY, 31 Washington Place, New York.

* THE JUDGES ON DENTISTRY, &c.—*Gentlemen*:—Permit us to call your attention to the following peculiarities of the specimens con-

tributed by us to the Exhibition, illustrative of our methods of inserting artificial teeth.

We present for your examination these specimens, combining, as we believe, several new, important and practical improvements, viz :

We claim as our own invention the method of attaching spiral springs to artificial teeth, as shown in the entire set.

We also claim the principle of producing atmospheric pressure (without central cavities) by sinking a bead around the edges and across the arch of plates.

We also claim the peculiar method of mounting or setting blocks, (as illustrated in case marked A) by screws and steady pins. The advantage of this method you will perceive at first sight; one of which is cleanliness, the blocks can be removed and the plate cleaned at pleasure.

We would also call your attention to the other plates, no two of which are precisely alike. The one marked B, is a lower set of peculiar form, for projecting the lower jaw; the one of which this is a duplicate is worn with entire satisfaction.

The one marked C is a new method of giving weight to the lower teeth, at the same time presenting a gold surface to the mouth.

Cases D, E and F have been worn. D. has been worn at intervals by — (he having another set,) for over three years. E was made for a lady, who wore them (while she lived,) with entire satisfaction, and at her death they were returned and received as old gold. F was worn by the wife of —, who is now dead. The case marked H is a duplicate of one inserted some years since for a gentleman who has lost, not only the teeth, but a portion of the jaw, the cavity extending through and back to the palatine bone. Which loss so affected his speech that it was almost impossible to understand him. The insertion of this plate restored his speech as well as appearance.

You will also see several single teeth lined by melting the gold on them, previously covering the surface of the tooth with platina ribbon and flux. The plate marked G is, as will be seen, inserted on the atmospheric pressure principle with gum exposed to prevent the diminution of the tasting surface. We have set but few cases in this manner but they have thus far operated well.

The instruments in the lower part of this case, as you will see, are for beading and banding plates; also a pair of shear-shape cutting forceps.

We also present our entire case in competition for *workmanship, and as combining a greater variety of styles or methods of setting artificial teeth, &c.*, than any other on exhibition.

We would esteem it a privilege to be present at the examination of the specimens and to point out the peculiarities and explain them more fully than we can on paper. Very respectfully yours, &c.,

AMBLER & AVERY, 31 Washington Place.

New York, Nov. 1st, 1853.

Editorial.

WHAT SHALL BE DONE TO PRESERVE THE TEETH OF CHILDREN?

The first thing to be done in this respect, and which is indispensable to success, is to awaken public attention to the importance of the subject under consideration.

The dentist needs the co-operation of the parents and the medical adviser in his efforts to preserve the teeth of children, and *must* have them if he is successful.

Nothing can supply the want of care and cleanliness on the part of the patient whose teeth may come under dental supervision, and no child will take the necessary pains to keep the teeth clean whose parents do not assiduously enforce its necessity. And very few parents will attend to this matter, unless the physician, whose duty it is to prompt them, is faithful to his responsibilities in this respect. And here is precisely the spot where the physician needs to be prompted to duty. The child is under his care long before a dentist is supposed to have any thing to do with the case. And this period is frequently critical as it respects the teeth of the child. So that if the needful attention is wanting in the early stages of their development, it is often too late to accomplish much, when they come under the dentist's hands. And the consequence is, a complete or partial loss of the dental organs; or, it may be, a permanent malformation, distorting the features and seriously incommoding the individual for life. The first occasion for the professional services of a dentist, as things usually go, is, either the period of the eruption of the permanent teeth, or, a few years after, when they begin to break down under the destructive influence of caries. Whereas, the child should be under his watchful supervision during the *first* eruption, and subsequently onward. And the physician should be wise enough to see this, or else qualify himself to do what a dentist should under the circumstances. We but simply utter a plain and obvious truism, when we say, that it is just as much the duty of a parent or the medical adviser to attend to a sick tooth, as to look after and carefully treat a sick hand, foot or

any other member of the body. If the limbs are crooked, if the form is disfigured, or if there be a want of symmetry any where, it is carefully regarded and seriously attended to. But the *teeth* may rot down, or become distorted, and thus lay the foundation for much future suffering; they may even exhibit the most reliable evidence of deficient nutrition, and derangement of the simulative organs, and yet pass altogether unheeded by the physician.

Yet it ought not so to be. It is time that physicians should be apprized of their responsibilities in this matter and at once attend to their duty. The administration of remedies during infancy and childhood require especial care, and become exceedingly important in this connexion. And their more direct or remote relation to the circumstances under consideration should be taken into the account.

We are not prepared to say, nor do we believe that the evils complained of are the necessary consequence of injudicious medication *in all cases*, as many people seem to suppose. But we have seen enough to become satisfied that the profuse and continued administration of mercurial medicines, during infancy and childhood, are not altogether innocent of these mischiefs. And not always the *least* of such *sequela* is justly attributable to this cause. But the circumstances of the case may sometimes vindicate the practice, where the results are confessedly disastrous.

But to return to our starting point. Parents should be taught, and that too by the physician, for none can do it as well as he, that the teeth are intended to fulfill an important office in the animal economy, and that the utmost care should be taken to preserve them. And that whenever the services of the dentist is needed he should be summoned without delay. A little neglect or postponement here is fatal to the future welfare of these organs. And as we cannot go back of existing circumstances to correct hereditary constitutional tendencies, it is the more important that we do what *may* be done, and at as early a stage as is any way practicable.

The value of the teeth cannot well be over estimated, and parents should learn that they are far more precious than jewels, and that it is absolutely a niggardly policy, as well as a sin against the child to withhold either the needful attention, or means to secure them against subsequent destruction.

That which, perhaps, in ordinary cases is most practicable as well as beneficial, and which comes even within the scope of abject poverty

is *cleanliness—absolute cleanliness*. Nothing in ordinary cases can supply its lack, as nothing will so effectually contribute to the preservation of the teeth as this simple thing. Water is free—a tooth brush costs but little, while the benefit is really incalculable. And the advantage of a habit, which every parent may contribute to form, can only be realized by those who are the subjects of a habit of cleaning their teeth every day of their lives.

We cannot insist too strongly upon this practice, nor urge its necessity in terms too forcible, inasmuch as all our experience and observation demonstrates the fact, that precisely where food and other matter in the mouth is suffered to collect and remain about the teeth *there* the teeth are sure to decay. The *interstices*, the *crevices*, *fissures*, *indentations*, &c. And we can see no good reason why, as a general thing, the teeth may not be kept clean in these respects, and thus be preserved.

They should not remain six hours without brushing, and especially where *fruits*, *confectionary*, *preserves* and the like are being used. Or in cases of ill health, where medicine is taken, and where an altered state of the secretions may work the most serious mischief to them. We know that when the patient is *very* sick it may be somewhat inconvenient, and at times impracticable to do this, but even in extreme sickness it is to be regarded as a sanative measure, and exceedingly refreshing to the sick one to have the mouth cleansed with good cool water, and the viscid matter washed away from the teeth and buccal cavity.

But there is another advantage closely connected with this which should be mentioned in this place. It is *the certainty of detecting the first indication of caries*. Being accustomed to examine and watch the teeth closely an opportunity is thereby afforded to witness the first departure from a normal condition of the dental organs, and thus by being made aware of the danger in season, relief may be summoned and danger averted.

It is very common, when children are brought to the dentist, for parents to say that "*they* were not *aware* of the disease until it had progressed so far as to be nearly or quite incurable." And even with respect to their own teeth, adults are heard to exclaim, as the dentist tells them how much their teeth need care, "Why, I did not know that my teeth were decayed at all." And here is the secret of this trouble. We contend that *they should know* what is the condition

of their teeth. And if they were more assiduous in their attention to them, they *would* know, and at the same time be able to arrest incipient caries, by applying the proper remedy.

We have thus indicated the steps of a dental reformation, beginning where the mischief itself begins, and extending onward through the successive stages of human life, and the various conditions of the human system. *Let the first steps be taken.*

THE "AUROPLASTIC PRINCIPLE."

Our letter to Dr. C. A. Harris of Baltimore published in the Jan. No. of the American Journal of Dental Science has awakened considerable interest among dentists in various parts of the country, for "specific information upon the subject." And accordingly we have received several communications requesting such information. We shall probably take occasion to make such communications upon the subject as we deem proper in the next No. of the Recorder. Meantime we would say for the information of those who have addressed us that we had no intention of trying to awaken an interest in the matter, which we could not consistently gratify. Yet we fear we have been somewhat misapprehended. We conclude so from the fact that different views have been entertained by different individuals who have written to us upon the subject, as evidenced in their communications.

We are preparing a compound base for the purpose of inserting teeth on the "*auroplastic principle*," which we shall offer to the profession very soon, in a much more convenient form than they would be likely to prepare it themselves from any description or formula which we could give them. It is similar in composition to "Hill's Stopping," and only dissimilar in having some additional coloring matter to make it more suitable for the purpose. We suppose it is generally understood that "Hill's Stopping" is a *patent article*, composed of entirely inoffensive and harmless materials, and perfectly safe for all the purposes of such experiments. The "auroplastic base" is precisely the same, with a little red oxide of iron, rose red, calcined asbestos, rouge, or any similar material necessary to give it a flesh or gum color. This article we propose to furnish to all who may desire, at the same rate that we furnish the Stopping. Those wishing to try these experiments can be supplied with the material as above.

New York Dental Recorder:

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Surgical, Medical and Mechanical Dentistry.

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JUNE, 1854.

No. 6.

SPONGE GOLD.

BY W. H. DWINELLE, M. D., D. D. S.

To produce a gold stopping of the highest excellence with foil, two things at least, are absolutely necessary. First, the possession of a material that shall combine the qualities of toughness, adhesiveness and purity. Second, the best instruments, in the hands of the most skillful experience.

But however excellent the appliances, well adapted the instruments, or ingenious the hand that guides them, they are all valueless and fail to accomplish the end, if the gold does not combine the qualities above indicated.

To insure with uniformity the characteristics of adhesiveness and toughness, it is absolutely essential that the gold should first be made *pure*.

For the present it is sufficient to remark, that much of the gold prepared for our profession is rendered "chemically pure" by *quartation*, and consequently cannot always be pure, for the reason that gold often contains foreign metals not soluble in acids. In addition to this, gold is often alloyed before it is beaten into foil.

Indicative of this fact, and as a universal test of the quality of gold, whether in the form of foil or otherwise, it is only necessary to consider that *pure gold is of a uniform color throughout the world*. A comparison of Abbey's foil, and some few others, with the paler foils of the market, will render it easy to distinguish between gold which is absolutely pure, and that which is not.

At some future time we will endeavor to give in the Journal, the

process by which gold may be obtained in *all cases*, entirely pure. But to our purpose.

Although we must concede that the best operators in our profession are enabled with a superior article of foil, to produce stoppings of a degree of perfection very nearly approaching all that is desirable in our art, yet it must be admitted that the *ultimatum* is not yet reached, a *perfectly solid* stopping has not yet been made with foil—a perfectly solid mass whose particles are so entirely integrated, that it may be rolled out into a plate, or drawn into wire, and possess all the characteristics of plate and wire obtained from melted gold. To be met here with the statement that gold stoppings are already produced of such a high degree of excellence as to answer all practical purposes, or even to endure every test but the last referred to, does not reflect upon what we have assumed, or divert us for a moment from our object. We may be critical, but we are aiming at perfection.

If the experience of the future shall prove, that an article of plastic gold can be produced, so conditioned, that its particles may be consolidated into a mass, so perfect as to answer all of the tests that could be applied to melted gold, we are bound to regard it as a higher approximation to perfection than any hitherto attained.

The needs of the profession in this direction, have long been felt and acknowledged; and it has been the constant aim of those most anxious for the advancement of our art, to produce an article which would endure these high tests.

To this end various attempts have been made to produce an article of *sponge gold*, or gold in such a finely divided condition, that on pressure it will weld into a solid mass.

In the July No. of the Journal, reference is made to the process by which several kinds of sponge gold has been produced. We will allude to these.

First, that produced by oxalic acids. Although it is precipitated in a minute state of division, it is exceedingly brittle, partakes of the quality of a powder rather than an porous mass, is difficult to introduce into the cavity of the tooth, and when introduced, often gives a brown stain to its surrounding walls.

Sponge gold made by fusing gold and silver together, and then extracting the latter by nitric acid, though better than the article just referred to, is of poor quality, in consequence of the imperfect manner in which the silver is extracted, from its being in comparative

Irre masses, and also in consequence of the presence of foreign metals not soluble in acids. It lacks the quality of toughness, is managed with great difficulty and is subject to great waste.

That produced by *aqua regia*, though liable to be impure, is still far superior to either of the others, and until recently represented the the highest advancement in this direction; though friable it is more plastic and manageable, and with sufficient time and proper care can be resolved into a stopping of great solidity.

While in Europe a little more than a year ago, Mr. John Tomes, surgeon dentist to Middlesex Hospital, London, showed us an article of sponge gold uniting more desirable qualities than we had hitherto any knowledge of. It occurred in irregular rounded masses or pellets, a little larger than an ordinary sized pea. Its surface was of lighter hue than its appearance within, glistening at different points, as though since its formation it had been subject to a high degree of heat, yet without diminishing its softness or pliability. On breaking it open its peculiar spongy character manifested itself in a most beautiful degree, its infiniteismal particles uniting together, forming a dense and delicate network. We filled two or three extracted teeth with it, forming large and exceedingly hard stoppings. After polishing these, with a graver we engraved lines and letters upon them, which on being subjected to a powerful lens, displayed the angles of each groove as clean and sharp as though it had been cut upon jewelry.

The only objection that could be urged against the gold referred to, was its want of a sufficient degree of plasticity, its disposition to crumble on being broken and consequent liability to waste in using. It seems, however, that Mr. Barling, the maker of the article, has recently succeeded in overcoming this objection to a great degree.

To Mr. Joseph Barling, No. 9 High street, Maidstone, Kent, is the profession indebted for this beautiful article so full of promise to our profession.

At the same time, and without any knowledge of the experiments or success of Mr. Barling, Dr. A. J. Watts, Chemist, of Utica, N. Y., was pursuing a series of chemical experiments with reference to obtaining an article of sponge gold which should supply the wants of our profession, and shortly after our return, he placed in our hands for trial three different articles of sponge or minutely divided gold.

The first is of a highly crystalline character. The second is in

lamina, made up of exceedingly fine granules. The third is in a spongy arborescent form.

The first, or crystalline gold, with proper care and handling, forms a solid plug; but unless great care is used, is subject to considerable waste.

The second, or laminated gold, is a much better article from its tougher character and extreme adhesiveness, but from the thinness of its plates, the operation of filling is rendered extremely slow.

The third, or sponge gold proper, is in the form of a cake, from one-eighth to one-fourth of an inch in thickness, of a compact, spongy, arborescent character; possessing, in the most eminent degree, all of the desirable qualities of the above—toughness, compactness, pliability, together with plasticity, and the highest degree of adhesiveness.

The method of producing the first, or crystalline gold, is familiar to the readers of the Journal. The mode of preparing the second and third is not yet published, but they are evidently prepared in an entirely different manner from the first.

With this last article we have had considerable experience, and with uniform satisfaction, especially in large stoppings.

In using the sponge gold, we adopt the following method: With a sharp blade we cut off from the cake of gold a sufficient quantity for our present purpose; this we anneal thoroughly with an alcohol lamp, and then, spreading it upon a clean paper before us, we cut it up into fragments and pellets best adapted to the cavity into which it is to be introduced.

Being previously provided with various instruments, whose extremities are subdivided into two or more points, we, by pressure upon the sponge, readily induce it to adhere to them, when we carefully carry it to its destination in the cavity of the tooth, which has been previously dried with paper. As the operation is repeated, accompanied with thorough packing and pressure, it will be found that the particles of gold readily weld together into a solid mass; so that when the stopping is completed, it in all respects resembles melted gold, and may be subjected to the same treatment with impunity. For the purpose of determining its various qualities as a stopping for the teeth, we subjected it to the following tests:

To test its *malleability*, we took a large plug of gold formed in the manner just described, laid it upon an anvil, and with a hammer beat it to flatness; annealing it, we passed it through a rolling mill,

when it was formed into plate, as perfect in all its characteristics as any plate made of pure gold.

To test its *ductility*, we took a similar plug, formed as before, and drew it out into wire as fine as No. 80, Stubbs' plate.

To test its corking or stopping quality, and the impermeability of its antagonizing *joints* to fluids, we took a piece of thick glass tube, about a foot long, into one end of this, to the depth of more than half an inch, we introduced a stopping of sponge gold. Inverting the tube, we poured into it a solution of red saunders; we then closely fitted a piston and rod to the tube immediately above the fluid, and upon this applied a weight. At the expiration of twenty-four hours the fluid had not made the slightest progress downwards.

To test its ability to being built up into irregular and independent shapes, we have repeatedly reproduced from one-half to three-fourths of the entire crowns of molar teeth, *in gold*. As a further test, we took a block of ivory, *chucked* it upon our lathe, and with small tools formed a matrix to correspond to the size of a large finger ring. Into this we introduced, by packing and condensing, as in stopping teeth, more than five dwts. of sponge gold; placing it back upon our lathe, we turned out the ivory without and within the golden circle, until it became entirely separated; this readily endured all of the necessary process of filing, stoning and burnishing into a beautiful massive gold ring, which has been worn constantly for several months, and will, in all respects, stand trial with any pure gold ring made in the ordinary way. It has this advantage, however, over all rings made heretofore, it is a *ring*, an uninterrupted ring, and "has no end," a continuous circle with no *alloy* between!

As a test of density, well formed plugs do not shrink under the blow-pipe; their inner surfaces are bright and solid, while their polished disks take the graver like plate.

Under the microscope it presents a beautiful and gorgeous appearance, like looking into a golden sylvan grove, each mossy or arborescent branch being in the form of a six-sided crystal.

Although we consider Dr. Watts' sponge gold indispensable to our practice, yet we do not think it will ever entirely supercede the use of gold foil. It can often be used to great advantage in combination with gold foil. In large stoppings it possesses great advantages over foil, from the facility with which it can be introduced, and consequent freedom from the fatigue which ever accompanies long operations.

We think no one in our profession who has had experience in its use, would be willing to be without it.

Dr. Watts is deserving of great praise for his persevering course of experiments, which have resulted so favorably to our art. May he reap the abundant reward he deserves.—*American Journal of Dental Science.*

CLEANSING THE TEETH.

BY T. D. THOMPSON, PROVIDENCE, R. I.

The different methods practiced by dentists, or persons calling themselves such, for removing the tartar from the teeth, or cleansing them, should, we think, be noticed. The good or evil resulting from these operations may be direct or remote.

The immediate or direct beneficial effects exerted upon the teeth, gums, and sympathising parts, are such, usually, as to repay fourfold all labor thus expended; the teeth are freed from an injurious and corroding agent; the gums assume again their healthy action, and the air, the purity of which is so essential to a healthy circulation of the blood, is inhaled without contamination; in fact patients, and all who may be so situated as to receive the odor of the breath, at once perceive the grateful change. These, we conceive, to be some of the legitimate results arising from a thorough and efficient cleansing of the teeth.

There are evils, likewise, to be noticed resulting from these operations. These injurious consequences do not result from the faithful and *honest* performance of these operations; but from a practice at once *dishonest*, and one which, we think, calls for the most decided reproof.

We believe where such is the known practice, the civil law should be invoked to punish the offender and *prevent* the infliction of injury that cannot be repaired.

Acid is often used as an agent in cleansing the teeth, or to remove the tartar from these organs. This is a common practice with some individuals; and instances are not uncommon where sets of valuable teeth have thus been mutilated, and even destroyed.

We have noticed the results of this practice on the incisor and cuspid teeth more particularly. We have frequently seen these teeth so much wasted as to be beyond the reach of remedial treatment.

We saw a young female, fifteen years of age, whose incisor and cuspid teeth had been destroyed, by the application of acid to cleanse them, in one year's time. This *valuable* operation was performed by a *dentist*, who advertised to cleanse the teeth "without scraping." This is by no means an isolated case; we have witnessed similar results from the use of diluted mineral acid, in cases of individuals in more advanced life.

We have referred to the remote effects of the improper treatment of the teeth—one case which has recently come to our notice will be sufficient to illustrate what we mean.

A lady visited our office to have removed several parts of teeth, in either jaw, (her mouth was nearly destitute of teeth.) After complying with her request, she remarked that she attributed the destruction of her teeth to a dentist who made use of acid while cleansing them. The teeth had crumbled away, and the sharp angles had irritated her mouth very much. She showed me her tongue, on the left side of which, very near the apex, was a morbid growth about the size of a chestnut, its color and general appearance was that of a cancer. She said the formation commenced soon after the teeth began to decay; as though it arose from the irritation of her tongue against the sharp angles of the decayed teeth. Her views of the case appeared to us to be correct; what the termination may be, time will decide.

What we wished to express by the remote effects of mal-practice in cleansing the teeth, is we believe fully illustrated by the last cited case. This person was suffering not from the loss of her teeth alone, but in addition, she was tormented with this morbid growth upon the tongue, which may eventually cause the destruction of her life.

If in the preceding remarks we have drawn a fair inference, what can be said of that individual who will thus tamper with the human system, who will thus mutilate such valuable organs as the teeth.—*American Journal of Dental Science.*

EXTRAORDINARY CASE OF PERIOSTEAL IRRITATION DURING THE ERUPTION OF THE DENS SAPIENTIE.—Dr. J. D. White in the News Letter for January, describes the case of a young lady, Miss L——, eighteen years of age, who complained of great pain in all the teeth of both jaws; they were sore to the touch, and very sensitive, particularly the canine teeth; she was unable to chew the softest sub-

stance, or brush or rub them with a cloth, and was unable to rinse them with a fluid above or below the temperature of the mouth. The lady was of a sympathetic temperament, great irritability of body, gums pale and rather spongy. The wisdom teeth were not yet erupted. Her medical advisers had been treating her for *neuralgia*, but with no success; they pronounced the roots of the teeth *diseased*, i. e. there were abscesses or fleshy substances growing on the ends, but as the nerves of the teeth were not dead, and all decayed teeth well filled, he knew there could be no alveolar abscess, and therefore pronounced it a case of *irritability of the periosteal membranes, consequent upon the development of the wisdom teeth*, which would pass off when the teeth were erupted. Her physicians did not agree with him, and they consulted another dentist of high standing, who said it was only a case of irritability of the teeth and gums, without any connection with the wisdom teeth, and advised an astringent wash, which, however, afforded no relief. Dr. W. then cut away the gum over the wisdom teeth of one side as an experiment, and the operation was attended with such success as to justify a like operation on the other side. The gums over some of the teeth united in a few months, when the unpleasant symptoms returned, proving conclusively that the first diagnosis was correct; the gums were cut away again over the wisdom teeth, but they closed as before, when they were once more cut and two of the teeth extracted. The gums healed, and all unpleasant symptoms passed off. The first and second inferior and superior molars were still in the mouth on the side from which the two wisdom teeth were removed, which accounted for the fact that the two wisdom teeth could not well free themselves from the jaw and gum, whilst on the opposite side the first inferior and first superior molars had been extracted early in life, and the wisdom teeth on this side occupied about the same place as the second molars of the opposite. The jaw was too short to allow of the free eruption of the wisdom teeth without extracting an anterior tooth. This case illustrates many similar, although not so strongly marked.

A DISSERTATION ON DISEASES OF THE DENTAL PULP AND THEIR TREATMENT.

This is the title of a very interesting paper, "prepared at the request of, and read before, the associated Alumni of American Dental Colleges," by C. A. Harris, M. D., D. D. S. As the paper is of too great length for publication in the Recorder, we must content ourselves with a simple digest of its more important points, which we record as follows:

The pulp of a tooth, from the high degree of vitality with which it is endowed, is one of the most sensitive structures of the body, and like other structures, is liable to become the seat of various morbid phenomena. Increased irritability may exist independently of any organic change, either in the pulp, dentine, or enamel. Examples of this are often met with in females during gestation, as also, impaired digestion. Cold, heat and acids heighten this susceptibility. Also, the conducting influence of metallic fillings. Inflammation and supuration, causing the death of the entire crown may supervene. Sometimes it may cause a slight vascular action, and an effusion of plastic lymph over the affected part of the pulp, which is gradually converted into *callus* and then into *bone*. Sometimes the entire pulp is converted into *osteo-dentine*.

The pulp, under certain circumstances, is endowed with regenerative powers, and is the result of an established law of the economy.

"The first example of an effort at reproduction of tooth-substance to which my attention was particularly called, occurred about four years ago, in a tooth into which I had placed, some months before, a temporary filling. The pulp, at the time, was considerably exposed, and, fearing an unfavorable result, I introduced, after having removed the decayed parts, a filling of Hill's stopping, leaving a small vacant space at the bottom of the cavity. On removing the filling, I perceived a white protuberance occupying the place of the vacant space which had been left at the bottom of the cavity, and which, on being touched with a sharp-pointed instrument, was found to be of about the consistence of cartilage. The question, whence did this come or how was it formed, immediately suggested itself, but it was not until I had observed the same thing in several other teeth, and ascertained that it ultimately ossified, that I arrived at the conclusion that it was callus, formed from coagulable lymph, effused from the exposed surface of the pulp."

The pulp of a tooth may become the seat of severe pain when there is no inflammation in it.

Remedial indications for pain arising simply from irritated pulp, consist in removing exciting causes. When produced by impressions from heat or cold, through the conducting medium of metallic fillings or intervening supersensitive dentine, the filling should be removed, and some non-conducting substance placed in the bottom of the cavity previous to replacing it.

It is worthy of remark, that the pain thus produced is in proportion to the sensibility of the adjacent dentine. Care should be used in applying any thing to destroy this sensibility lest the pulp itself be destroyed.

For the treatment of sensitive dentine arsenious acid, chloride of zinc, cobalt, and the actual cautery have all been employed. The Dr. gives the preference to chloride of zinc, to remove tenderness of dentine preparatory to filling.

Dr. Spooner of New York brought the use of arsenious acid to the notice of the profession in 1836. But it had previously been employed for three or four years by his brother, Dr. J. R. Spooner, of Montreal. Great evil has resulted from the injudicious and indiscriminate use of arsenious acid. If applied for the removal of the sensibility of the dentine preparatory to filling, it should be applied with great caution, in order to prevent the destruction of the pulp and the injection of the vessels of the dentine with red blood. Instances have occurred where this has been the effect of its application, and where the pulp has lost all its vitality, and the tooth so treated has assumed a dark brown or purple color. Its application to the teeth of young persons, and teeth of a soft texture is liable to be followed by this result. It should not be permitted to remain over two hours when it is applied for the purpose of removing sensibility from the surfaces of dentine. The thirtieth, fortieth or even fiftieth of a grain, with an equal quantity of sulphate of morphia is sufficient to apply to a single tooth. It should be placed directly upon the bottom of the cavity, on a dossil of raw cotton or lint moistened with water or creasote. After the arsenic has been applied, the cavity should be carefully filled with wax mastic or Hill's stopping,* to prevent the possibility of its escaping into the mouth.

* The latter is incomparably the best for this purpose.—ED. RECORDER.

The use of the actual cautery, once so much in vogue, has been abandoned.

Pulverized nut-galls, tannic acid, &c., have sometimes been used with success.

After noticing the agents which have been employed for destroying morbid sensibility in dentine, the Dr. next considers the use of non-conductors of caloric which have been employed for the same purpose, and mentions *asbestos*, *gutta percha* and *Hill's stopping*, which he says, is a compound of gutta percha, carbonate of lime and some other earthy salts. Also, the use of *cork* and *oiled silk*. The use of *asbestos* for this purpose was first brought to the notice of the dental profession by Dr. Solyman Brown, in a paper published in the American Journal of Dental Science in 1840.*

Speaking of *gutta percha* for this purpose, the Dr. writes as follows:

"The result of these last experiments was so satisfactory, that I took occasion, at a meeting of the American Society of Dental Surgeons, held at Saratoga, in 1848, to call the attention of the members to the subject. But previously to this time, Dr. A. Hill, of Norwalk, Ct., had made a preparation, now generally known as "*Hill's stopping*," of which gutta percha forms the principal ingredient, for filling temporary teeth, and permanent teeth in cases where the sensibility of the dentine is such as to preclude the use of gold or other metallic substances. He gave me a small piece, requesting that I would make such experiments with it as I might deem necessary to satisfy myself with regard to its value. It proved more valuable than I expected, for it soon occurred to me that a thin layer of this preparation placed on the bottom of the cavity of a tooth in which the dentine was in a supersensitive condition, previously to putting in the gold, would, on account of its non-conducting properties, prevent impressions of heat and cold from being conveyed to the pulp, and as a consequence, the irritation liable to be produced by them. The result fully equalled my expectations, and I have continued to use it in cases of this sort, with the most decided advantage. It answers equally as good a purpose as asbestos, and can be applied more conveniently. It also adapts itself more perfectly to the inequalities of the floor of the cavity."

* This article, viz. *asbestos*, is now incorporated into the compound known as "*Hill's stopping*."—ED. RECORDER.

DENTAL EDUCATION.

So many different views are entertained in regard to the education proper for a dentist, that it would seem a superfluous task on our part to add another to the thousand and one speculations already before the world. Still, as we have become in a measure identified with the question, silence, at this time, might be construed into a hesitancy about expressing our opinions, which we are far from feeling.

The primary question to be decided by any one really in earnest about a professional education, is simply this: What is the position I design to occupy? This being answered, the rest is soon settled. Now, what is the position which the better class of dentists have been for many years aiming at? What is their ambition? Why, the very laudable one of having their art recognized as a speciality of medicine. They claim an equality with aurists, oculists, othopædists, and specialists generally, who have succeeded in getting themselves recognized by the medical profession.

Now, no one that we have ever heard of, pretends to rank any exclusive speciality in any science as equal to the whole science itself. The technological chemist, though he may have exhausted all existing knowledge in his department, is rated by no one, whose opinion is worth having, on a par with the chemical philosopher, whose studies and acquirements embrace the whole round of the science, and comprise the results of myriads of observations in all the specialties.

There is, however, a rank among specialists themselves, and to keep clear of any suspicion of personality, we continue our illustration from the chemical profession. Take two technological chemists, one of whom is a routinist, and the other an observer. The routinist is drilled thoroughly in all the deduced principles of his department. He understands all the manufacturing processes, and conducts his work with precision and accuracy. He may suggest improvements in the arrangement of the parts of a factory, or detect errors in the construction of the flues. He is a reliable man, and enjoys the full confidence of the master-manufacturer who employs him, and the respect of those who are under him.

The other is as well drilled as his brother chemist in all the technological deductions of chemistry, but he has gone farther. He has extended his studies into the domain of chemical philosophy. He understands the principles which underlie the formulæ, and can criticise not only the operations, but the rules which guide them. He is, there-

fore, prepared to take advantage of his position, and to gain that knowledge of the influence of quantity upon chemical changes, which the analyst and the laboratory chemist can never acquire. He reasons upon what he sees, detects fallacies that escape the scrutiny of the routinist, and adds to the common stock, not only of technological, but of philosophical chemistry.

Now, that these two men hold very different relations to the higher class of chemical philosophers, no one can fail to perceive. Both are specialists; but one is a specialist, and nothing else; the other touches upon the domain of philosophy, and obtains a recognition which is not accorded to his brother chemist.

Apply these remarks, these facts, to the position of the dentist. How can the medical profession, with its learning, its skill, its high position, its centuries of renown, its memories, its muster-roll of great names, its army of great intellects, before whom all men must bow in respect, how can such a profession recognize a mere mechanical pursuit as a department of its own great art?

Now, it is of no avail to attempt to reply to this by citing the ignorance of many members of this exalted profession. Plenty of asses, calling themselves doctors, there are undoubtedly are, but for all that, *medicine* is not asinine. The medical schools have generally been untrue to their trust, and have overwhelmed the profession with fools, for the meanest of all mercenary considerations. The best defence that they can make is, that their graduates are somewhat better than the horse-doctors, and the Indian-doctors, and the old women, and the Thompsonians, whom they supercede; and their honest confession that, were they to reject every man who could not spell the words of his mother-tongue correctly, to say nothing of speaking or writing tolerable English, they would be compelled to close their doors, is a melancholy admission of their inability to elevate the standard of the profession, or even to keep it up to what it was before they commenced tinkering at it. But these boobies that feel pulses, and look at tongues, and give pills all over the land, are not the medical profession. The very professors who give them their diplomas would scorn to meet them on terms of professional equality. *Their* recognition or non-recognition of any body or any thing, amounts to nothing at all. For all this paralysis in the extremities, however, the heart and brain of the medical profession are still sound. There are still profound learning, great acumen, high intellectual powers, bound-

less acquirements in its members, in spite of the low standard of requirements acknowledged by the colleges; so that the plea alluded to is worthless, and he who claims affiliation with this profession, comes before a tribunal fully competent to decide upon his merits, with an authority that all the world must submit to.

It is manifest, therefore, that before a speciality can pretend to a recognition from so learned a body, it must itself be learned. It must have sufficient knowledge of general science to be able to determine when its own facts can add to the common stock, and what the value of those facts is. It must, in short, have some general idea of that art to which it claims to belong. Without this, it must forever remain neglected and obscure, obtaining no respect because deserving none.

If, then, a dentist wishes only to be a mechanic, exercising his ingenuity upon the teeth, let him have a mechanic's education, and take a mechanic's rank in the scientific world. If he desires to be acknowledged as a collaborator with the physician, let him get such a knowledge of general science and literature as will qualify him for such associations. It is the height of folly for any man to struggle into a society in which he cannot maintain himself. He only pays a premium for ridicule, and offers a bribe for contempt.—*American Journal of Dental Science*.

ABSORPTION OF DENTINE.

BY J. D. WHITE, M. D., D. D. S.

This phenomenon, it would seem, is as yet shrouded in mystery, and it has been generally, too, if not always regarded as peculiar to the fangs of the deciduous teeth. As long since as fifteen years we met with many specimens of absorption of the roots, as well as of the internal walls of adult teeth, which led us to reflect upon this strange process, but must confess that we have not yet arrived at any satisfactory conclusion. Authors generally agree that the absorption of the fangs of the deciduous teeth is due, either to pressure exerted by the approach of the permanent set, or by a withdrawal of nutrition from them, on account of the obliteration of the deciduous blood-vessels. With regard to the first position, we do not think it fair to presume that a mechanical force is exerted by one organ upon another, except so far as position is concerned in favoring or retarding the develop-

ment of certain organs of the body; and as to the second, we have no facts at all to support it for a moment. That the arteries cease to exist when the deciduous teeth are lost may be true, but they become useless when the teeth are removed; they do not shrink away anticipating a loss of the teeth. The ductus arteriosus does not shrink away in view of a change in the foetal circulation, but ceases to exist on account of a change in the vital economy. An increased vital act in an organ invites a determination of blood to it; so it would seem with regard to the absorption of the deciduous teeth, even though the increased afflux of blood to them would seem to favor their growth, instead of their absorption; but absorption, by a deprivation of nutrition, or as a pathological condition, and absorption as a vital or physiological function, we think are very different processes.

Mr. Tomes remarks: "How the absorption of the fangs of the milk teeth is affected—what is the nature of the process, or whether the process is really an active force exercised upon the tooth by adjoining parts, or inherent in the tooth, remains at present to be determined." "It is certain that if a milk tooth be dead, the fang is not absorbed. * * * * On removing a milk tooth, where the whole of the fang has been removed, we find the crown excavated, and the excavation occupied by an unattached vascular papilla."

The excavation of the crowns of the deciduous teeth corroborates our own observation. We have many specimens of this in our possession at the present time, and for a long time believed we were the first to have made the discovery, never having met with a dentist who had seen them. We first saw them noticed in the above cited author, and by Dr. Ashburner. We were glad to find that other operators had met with similar phenomena. The excavation in the crowns of the teeth are filled up by a vascular papilla, but not *unattached*, as observed by Mr. Tomes. We have several specimens where the vascular mass has been fastened to a thread and suspended in alcohol for a long time, and the crown still remains adherent. In every instance that we have met with such cases, we have observed that it required some mechanical force to separate the vascular mass from the dentine. Absorption of the dentine of an adult tooth may take place as a disease, but we cannot regard the absorption of the roots and crowns of the milk teeth as such; still the one looks very like the other.

Dr. Ashburner, according to Mr. Tomes, regards the absorption of

the deciduous fangs as due to a special organ. This may be true, but it is hard to understand what could give rise to the development of this new organ. We can understand how an organ may alter its function, and by so doing change the structure of a part, so that it will present different phenomena. If this process was only confined to the deciduous teeth, we may regard it as due to such new organ, and believe that it was only a part of the programme of change or development through which those organs were destined to pass; but when the same process, or apparently the same, occasionally attacks the adult teeth, we lose the rationale. The explanation which we have to give may not be true, as our observations have not been such as to settle it in our minds beyond a cavil, but we will regard it as good until a better is given. We know that the papilla of a tooth is a very vascular mass, and that it commences first to deposit dentine upon its surface, layer by layer, on granule after granule, from without inwards until there is only a rudiment of this substance left, occupying a narrow canal running through nearly the whole length of the dentine or tooth, from which the dentine which it has formed is to receive its future nutrition. This rudiment we term the dental pulp. Now, as the calciferous formation is going on within this papillary mass it tends to obliterate the size of the blood-vessels, so much as to render them too small to be seen, either by the naked eye or the glass, and not being large enough to carry red blood, escape detection, but still carry the liquor sanguineous, as other white tissues, and which is sufficient to nourish the structure. From this view of the case, we regard the blood-vessels as still existing in the dentine of the tooth, but rudimentary, the same as they existed in the papilla, and if from any cause a preternatural accumulation of blood takes place in the capillary vessels of the pulp, absorption of the calciferous formations set in, and as fast as the dentine is absorbed the blood-vessels regain their former size, admit of the re-entrance of the red globules of the blood, and we have here presented to the eye, if not in fact, a re-establishment of a substance, to all intents and purposes, as that of the former papilla. As this is an important point upon which an interesting feature of practice occasionally turns, we would solicit an enquiry into it by the profession.—*Dental News Letter.*

Correspondence.

LETTER FROM DR. JOHN ALLEN.

MR. EDITOR:—Permit me through the medium of the Recorder, to contradict a report which is being circulated to the effect that I have abandoned my suits with Dr. Hunter of Cincinnati, for which he stands charged with libel and infringement of patent, as such report is *without foundation*.

Another report is also being circulated in the South, that my suits against Dr. Hunter have been decided against me, and that he has recovered damages for vexatious suits. This report is also *false*.

Although a great amount of testimony has been taken before commissioners preparatory to the trial, yet it has not been submitted to the court for action, but in all probability will be taken up for trial at the next term, which will be in October.

With reference to the suit in New York. In as much as the defendant had refrained from further trespass in the case, after prosecution was commenced against him, it was thought best by the attorney who had charge of the suit, to give precedence to the United States District Court of Ohio for testing the validity of my patent, as all the facts touching the merits of the case could be elicited with greater facility in the Ohio than in the New York District Court, as most of the witnesses reside at Cincinnati, and that the New York suit be suspended for the time being for that purpose.

J. ALLEN.

NEW YORK, May 30th, 1854.

Editorial.

TO PRESERVE THE TEETH OF CHILDREN.

In one or two previous numbers of the Journal, we have indicated the necessity which strongly demands the co-operation of physicians and parents for the preservation of the teeth of children, and the first steps necessary, nay, absolutely indispensable to this end, and have assumed the ground that both these classes of persons have a heavy responsibility in the matter.

We shall now proceed very briefly to point out what we conceive to be the duty of the dentist who may have the supervision of the teeth of children at an early stage of their development. And

1st. The duty of frequent and close examination of the teeth, and parts therewith connected, is not to be omitted. Nor should this be done in a careless and superficial manner, but with great care and circumspection. There are several points of importance to which his attention should be directed, viz:—

(1) The stage of development; (2) the form of development; and (3) the pathological indications.

These several points are of importance as indicating the necessary treatment. The indications will be, to *remove all obstacles, correct irregularities*, and *preserve* the teeth.

It should be a settled maxim with the dental practitioner never to remove a temporary tooth until there is a clear and obvious necessity for so doing. The presence and retention of the deciduous teeth are essential to the healthy and normal development of the maxillary formations as well as to the development of the permanent teeth and the form of the face. And many and great evils not unfrequently follow their premature extraction. Here is a great evil. Parents come with their children to the dentist, and often require him to extract these teeth long before the time of replacement. But the dentist should be firm. He has no right to yield to the ignorance and caprice of those parents who would thus ignorantly, if not wantonly, injure their children for life. It should be his duty to instruct them, and if need be, expostulate with them, pointing out to them the inevitable

evil results to the child, if such a course is pursued. The only circumstance that can possibly justify a dentist in removing the deciduous teeth of children, before the time of replacement, is the avoidance of a greater evil than would naturally ensue from such removal. Such cases sometimes occur, and these are sufficient to vindicate the operation. *Look for the first indication of caries, and check it if possible.* This may sometimes be done with the file, but as a general thing the teeth should be filled. We are now speaking of the first or deciduous teeth. And if no other necessity existed for their preservation, the relation they sustain to the *permanent* teeth, and their future growth and development, as well as to the controlling influence of the parts with which they are connected, touching the form and features of the face, would justify the most scrupulous care to prevent their premature destruction and removal.

We are perfectly aware that the dentist is frequently met just at this point with difficulties which are often insurmountable on his part, after he has done what he could. These obstacles originate either in the ignorance or the niggardly meanness and penuriousness of parents, who are unwilling to incur the necessary expense or trouble incidental to such circumstances.

In the first place, they regard the *first* teeth as of little consequence any way, and it is exceedingly hard to make them understand the necessity for their temporary preservation. And, in the second place, they are often unwilling to pay the expense of so doing. But the dentist has failed to discharge his duty in the premises, if he does not patiently labor to instruct them, and thus seek to educate the public mind up to the necessity of the circumstances. Let him point out to them the importance of preserving the teeth of their children, and the *imperious duty* of so doing. Let him show them that money thus expended is money invested on interest, and that this indeed is the *truest economy*, under all circumstances. A failure here is sure to be followed by suffering, expense and trouble hereafter, and that which is *timely* done, in this regard, is greatly advantageous.

We feel ourselves justified in urging the importance of just this point with special emphasis. For it is precisely here that neglect or inattention is followed with a train of irremediable evils. For at this juncture, we can do, what, if neglected for only a short season, we *never can do afterward*. Let it be understood then, as a fundamental rule of practice, that the temporary teeth of children should be

preserved if possible, so long as nature indicates their necessity, and that the perfection of the development of the permanent ones depends very much upon this circumstance. It may be objected that children are too young and inconsiderate to submit to the needful manipulation in such cases, and that therefore such a recommendation is altogether impracticable. In reply to this, we would say, that our experience with children, in this regard, will not justify such a conclusion. But on the other hand, fully establishes its practicability. But if this were not the case, the *law of necessity* demands that it should be done. The voluntary consent of the child, however desirable it may be, is not to be regarded as indispensable in the determination of such a case. But when the child cannot reason, parents are supposed to be able to judge for them. And where parents are hesitating for lack of knowledge, the dentist must insist upon his own judgment in the matter.

Let these few hints be pertinaciously followed, and we shall soon witness a most agreeable change in the countenances of the children of the rising generation. A great evil will be removed, and a lasting benefit conferred.

TO STOP EXCESSIVE HEMORRHAGE AFTER EXTRACTION.

In some remarks upon this subject in the Boston Medical and Surgical Journal, Dr. A. C. Castle, M. D., of New York, speaks as follows:

“The most frequent dental hemorrhage occurs in persons of a sero-lymphatic temperament and strumous or scrofulous cachexia. These are the cases which present the greatest obstacles to overcome. In other habits and temperaments, it is as easy to stop the hemorrhage as it is to stop the bleeding from a “cut finger.” I have treated some fifty cases, and have never failed to arrest the hemorrhage, in less than twenty minutes, by the following simple plan:—Take a piece of gutta percha, about three times the size of the fangs of the tooth extracted, boil it until it is quite plastic, then mould it as near as possible into the shape and size of the extracted tooth. Sponge from the dental socket all the blood that can possibly be removed; then press the *gutta percha* tooth (now softened on its surface over a spirit lamp) into the socket, the overplus gutta percha being spread to fit round the contiguous teeth and upon the surface of the gums. This

done, take a few folds of soft linen or muslin or pocket handkerchief, place it over the gutta percha, and bind the jaws together so that the linen is bitten upon and thus pressed upon the bleeding surface. After a few minutes the gutta percha may be left to itself. When pain follows this operation, the gutta percha (after the hemorrhage has been stopped) should be removed, and lint, saturated with oil or simple ointment, inserted in its place."

The idea of making an artificial tooth of *gutta percha*, to press into the bleeding socket, and thus stop the mouths of the bleeding vessels, is quite ingenious. Much more so than any other method which we have hitherto noticed.

Instances of alarming hemorrhage are not wanting where the skill of the physician and dentist have been put to the rack to suppress it, and where the patient has well nigh bled to death before this could be accomplished, and in some cases death has actually ensued.

It is therefore well that the profession should be armed against circumstances of this kind, and be able at once to avail themselves of the most appropriate instrumentalities to suppress an alarming and dangerous hemorrhage. In the course of nearly twenty years practice, we have met with a few cases where a peculiar constitutional hemorrhagic tendency has been manifested after the extraction of teeth, but have always succeeded in suppressing them by very simple means; such, for instance, as the following:—

A pledget of cotton, wet with water, and saturated with powdered alum, pressed firmly into the bleeding socket, and held in this position by several compresses of the same, closing the teeth upon them, with the patient in a recumbent position.

The main thing upon which we rely in such cases is, *pressure upon the bleeding vessels*. Some styptic application, like powdered alum, myrrh, nut galls, and the like, are very useful adjuncts, but will not supply the lack of pressure. Hence various means have been resorted to, and numerous contrivances suggested, to bring this pressure to bear in the most direct manner upon the mouths of bleeding vessels. Some use lint and beeswax, rolled up in the form best adapted to the cavity or socket. Some have suggested the use of plaster of Paris, with which to fill it. Some burn the parts with nitrate of silver, or the actual cautery. But as yet, we have never found a case, where such treatment was demanded. We like the plan of Dr. Castle very well, and think it worthy of attention. But we beg leave to suggest

a still better plan, where such means are required. To wit: Use the *very tooth extracted* for this purpose. This will be sure to fit, and, if preserved, will be at hand. Let the fang be washed, if necessary, and then invested with soft lint, and bathed in some good styptic, and then pressed firmly into *its own* socket, to be covered with a heavy compress, and held in its place by closing the teeth firmly upon it.

And this, we doubt not, will be all sufficient.

A CORRESPONDENT'S INQUIRY.

"Have you tried Dr. Allen's continuous gums, in the insertion of teeth? There have been a number of trials by different members of the profession in this neighborhood, but with very poor success." Syracuse, April 28th, 1854.

ANSWER.—We have tried it, and continue to try it, with the *greatest satisfaction*. We think it not only the most beautiful, but decidedly the *strongest* work that can be put up, when it is well executed.

It is not to be supposed that persons altogether unacquainted with this style of work can at once execute it in a manner perfectly successful or satisfactory. But those who do understand it can exhibit some of the most beautiful and substantial artificial dentistry in the world. We cannot doubt for a moment, that this method of putting up artificial dentistry will become general, in a few years, as well as universally popular.

If any one of our readers still doubts, let him call on Dr. John Allen, the inventor, No. 30 Bond st., or Dr. D. H. Porter, No. 94 Duane st., N. Y., and be satisfied.

SUTTON & RAYNOR, Block-teeth Manufacturers and Mechanical Dentists, (see advertisement on outside,) have sent us a card of very beautiful teeth from the laboratory of Dr. S. W. Neall, which we think will compare favorably with any of the kind now in market.

These teeth are well shaded, translucent, and apparently of compact body and firm texture. We are glad to see the efforts which are now being made, and the generous rivalry at present manifested to excel in the composition and manufacture of artificial teeth. Messrs. Sutton & Raynor are agents for the sale of these teeth.

DR. C. C. ALLEN.

The April No. of the American Journal speaks as follows of the withdrawal of the former editor of the Recorder:—

“We are sorry to lose so good a writer, and so courteous and gentlemanly a man from our little corps editorial as Dr. A., but we at the same time cannot but congratulate him on being relieved from the cares and vexations necessarily connected with the management of a publication of this sort. Having experienced them ourselves we know what they are.”

We would inform the editor of the Journal that the Dr. has only left *one* co-partnership to form another, doubtless much more congenial to his *taste* and inclination. In other words, we learn that he has recently been united in matrimony with a highly intelligent and accomplished lady.

This is doing vastly better than to continue the vexatious operation of editing a dental periodical, and therefore we offer him our most cordial congratulations. For having experienced the advantages of such an union, “we know what they are.”

DR. E. PARMLY is about to visit Europe, where he will probably spend a few months, in greeting old acquaintances, forming new ones, and in observing the progress of dental science, &c. But he goes not there for the first time, nor as a stranger. Perhaps no member of our profession in America is better known in Europe, or has won a greater degree of celebrity as an operator in dental surgery than Dr. Parmly. He being one of the oldest practitioners now living, and personally identified with the history of the profession, both in Europe and America for the last forty years. And, although his head is frosted with age, and his hair quite hoary and venerable, yet his natural force seems not in the least abated, nor does he seem to lose the elasticity and activity of early manhood. We wish him a pleasant trip, and a safe return. We have the promise of his occasional correspondence, and shall favor our readers with the same.

We have received a letter from Dr. Schmedicke, of Berlin, Prussia, with the promise of a communication from him on the subject of Dentistry, for a future No. of the Recorder, but not a single No. of his journal has yet reached us.

A WORD TO OUR SUBSCRIBERS.

With the issue of the present No. the first half of the eighth Vol. of the Recorder is completed. And although we continually notify our readers that our terms are \$2 per year *in advance*, we have so far received less than what is sufficient to pay for the *paper* and *printing* of two numbers.

Our subscription list is large enough, if each one would promptly send his two dollars, to make every thing easy and pleasant, and although it is a very small sum for each, the aggregate is more than *one* should loose.

Let each one who reads this notice promptly remit the amount, and then we shall push on our way with fresh zeal and energy.

ORUM & ARMSTRONG'S IMPROVED CURVATURE GUM TEETH, 114 Arch street, Philadelphia.—We acknowledge the receipt of some very beautiful specimens of the above named article, which, for form and adaptation are equal, if not superior to any thing we have seen. If the *body* was more compact and solid, and the color a little more translucent, we should think them hard to beat. We have just finished mounting a front set which stand the fire well. *We like them.*

THE FAMILY DENTIST, S. S. BLODGETT, Editor and Proprietor.

This is the title of a neat little monthly hailing from Brockville, C. W. As the first dental periodical that we have seen, as published by our neighbors over the border, we welcome it as the harbinger of a more correct and healthy public sentiment in matters pertaining to dental practice.

AUROPLASTIC BASE.—We are compelled to defer our contemplated article on this subject to a future issue of our journal. Meantime we shall continue our experiments and hope to present something still better than any thing hitherto arrived at in this line.

ERRATA.—In the article on Dental Education, page 120, 13th line from top, read orthopœdist for othopœdist. On page 121, omit are after there are undoubtedly.

IMPORTANT TO DENTISTS.—“*Selling off a stock of Teeth and Moulds at a great sacrifice.*”—See Prof. Blandy's advertisement in the present No. of the Recorder.

New York Dental Recorder:

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

Vol. VIII.

JULY, 1854.

No. 7.

From Piggot's Dental Chemistry and Metallurgy.

EFFECTS OF MERCURY ON THE SYSTEM.

The general influence of mercury upon the system is so well known, that we need not do more than glance at its more prominent features.

The ordinary alterative action of this metal when administered in properly regulated doses, is attended by no especial disturbance of the system. But at times it does not operate upon the economy with such tranquility. A febrile condition, or at least a state approximating fever, is not uncommon. At such times the surface becomes warm, the circulation is accelerated, the pulse is frequent and jerking, the face is slightly flushed, the nervous impressibility is heightened; in short, there is a general excitement of all the functions. The glandular system is especially acted on; the liver secretes more bile, the salivary glands eliminate more saliva; and in this, as well as in the green discharges from the bowels, the metal may be detected.

When mercury is about to spend its force upon the glands of the mouth, the earliest indication of its action is an unpleasant metallic taste like that of copper or brass. Presently the gums become sore and tender, the mucous membrane is inflamed, the teeth suffer with disagreeable sensations, which are referred to the fangs, and these are raised to actual pain when the jaws are firmly closed. Presently, the gums swell and become spongy, then a whitish line is seen along the edge of the teeth, and the peculiar mercurial fetor is developed. The salivary glands are swollen and hot, the jaws stiff and painful. After this condition of things has lasted a short time, a copious flow of saliva takes place. The disease does not always stop here. The cheek is puffed out with a red swelling, which gradually becomes more and

more livid, till a gangrene sets in which sweeps it away, slough after slough laying bare the cavity of the mouth, and hurrying the unhappy sufferer to the grave. Sometimes the ulcerations attack the gums, break them down, seize upon the periosteum, penetrate the bone, which becomes carious and spongy, and finally exfoliates, leaving the most hideous gaps in the face. At other times, this ulceration or gangrene extends among the soft parts, and opens the bloodvessels, giving rise to the most destructive hemorrhage.

Nor is its influence by any means confined to the cavity of the mouth. With or without salivation, it exerts the most baneful influence over the economy. At times, it acts as a powerful and dangerous sedative to the circulation. The countenance becomes pale and anxious, the pulse small and frequent. There is much anxiety about the præcordia, great nervous agitation, and extreme and alarming prostration of strength.

At other times, an eruption breaks out over the surface, which has been called *hydrargyria*, *eczema mercuriale*, and *lepra mercurialis*.

The most distressing effects it produces, however, are the affection of the nervous system. These are especially experienced by those who contract the poison by slow and gradual absorption of the metal. One of the most frequent of these disorders is a form of *paralysis agitans*. The tremors of the limbs are so considerable that the patient is unable to walk without staggering, or to hold any thing in his hand. He stammers, and finds it extremely difficult to speak at all. His memory fails him, his intellect becomes weak, and his sight is dimmed. Such phenomena as these are constantly met with among gilders, looking-glass makers, and workmen in quicksilver mines.

So virulent a poison as this should never, except in cases of the sternest necessity, be introduced into the system, and then it should be done with the greatest care, and so managed that its absorption may be controlled, or that the quantity to be taken in may be regulated.

How are these conditions fulfilled when an amalgam is introduced into a tooth? Not at all. The secretions of the mouth float around the metal, and act upon it. An important part is also played by the other constituents of the filling, which, together with the mercury, form a galvanic apparatus, greatly accelerating the solution of this metal.

The *amalgam question*, as it has been called, is thus answered

with the utmost promptitude by chemistry. To the chemist, it has but one side; it needs but to be stated to be immediately decided upon. The use of a mercurial amalgam is, under all circumstances, wrong; for the simple reason that we have no guarantee that the most frightful results of mercurial poisoning will not take place. The introduction of lead into it, as in the villanous compound, of which a formula has been given, is a step farther into the wrong.

That the metal itself, as well as its salts, is capable of producing these symptoms, is a matter of such commonplace notoriety that the veriest tyro is familiar with it. That a soluble compound is formed in the mouth, which can be absorbed by the teeth, is proved by simple inspection of a tooth which has been filled with it. I have seen the metallic discoloration extending into the fang.

The dose of mercury which produces its peculiar effects is well known to be extremely variable. The probability is that, except in rare cases, but a small portion of it ever gets access at any one time into the economy. The effect experienced is not that of the last dose, however large, but of all that has effected a lodgment in the tissues. The recent observations of Melsens and Budd have shown that both mercury and lead, even in the form of insoluble salts, may remain a long while combined, as it were, with the tissues, producing varied phenomena of disease, and then may be set free by iodide of potassium, so as to enter the blood and produce their specific primary effects upon the organism. Now, if these insoluble compounds are capable of producing so much mischief, by what possible process of reasoning can any one arrive at the conclusion that metallic mercury, which we all know to be soluble in the fluids, will prove inert? If it be urged that the smallness of the quantity and the gradual nature of the absorption is a guarantee against poisoning, a reply is to be found in the well-known fact that small portions of metallic mercury, daily absorbed, produce the most distressing and unmanageable forms of mercurial poisoning. It is precisely in this manner that the workmen in mercury introduce the metal into their systems.*

*As an example of the remarkably small quantity of a metal which is sometimes sufficient to poison, a case recently reported to the American Medical Association, and copied in nearly all the journals, may be cited. The most obstinate and protracted symptoms of lead poisoning occurred in a gentleman who had been in the habit of *chewing metallic lead*.

NEW MOTIVE POWER.—A correspondent of the Syracuse Standard, writing from Rochester, speaks of the discovery of a new motive power which is to subvert the present mode of steam propulsion, and a great improvement upon all former discoveries. But we must confess that to us it looks like a very doubtful case. What is the "Bi Sulphate of Carbon?" He says:

"It consists in the use of Bi Sulphate of Carbon as a motive power. An engine has been constructed which works like a charm. The expansive force of this material, as every chemist knows, is many times greater than that of steam, while at the same time it requires a much less degree of heat to vaporize it.

I will give you the result of an experiment with a miniature steam-engine. It required the constant use of eight spirit-lamps to generate steam enough from water to cause it to make one hundred and fifty revolutions per minute. Withdraw two of the lamps and all motion would cease. Withdraw all of them and keep them away *twenty minutes*, then apply the Bi Sulphate of Carbon and there was heat enough remaining to propel the engine at the rate of *one thousand times a minute*. And this will apply on a large scale just as well. This substance being so easily evaporated, heat from 20 to 160 degrees is found sufficient for all purposes. Hence there is no danger of explosions as with steam. It is confidently believed that this new motive power is destined to supersede the use of steam. The inventor has applied for letters patent.

To sum up the whole matter, the inventor claims that a locomotive on this principle can be built at a less expense than a steam locomotive; that the boiler need be only one tenth as large; the engine can be managed with less hands; a greater speed can be obtained; no danger from explosions; and a saving of fuel at the rate of *eighty per cent*. As an instance of the value of this invention, if these things are all true, the New York and Erie Railroad would save annually \$300,000 by adopting the invention."

THE ACTION OF COD LIVER OIL ON ANIMALS.—It has been found by actual experiments, recently performed near London, that in hogs, bullocks and sheep, a greater degree of fattening was obtained from a less amount of food when Cod Liver Oil was used. Hogs took two ounces, sheep one ounce, and cattle a quarter to three quarters of a pint, per diem, and paid better than any others in the market.

DENTAL EDUCATION.

BY J. S. ROCK, M.D., DENTIST.

The importance of a liberal education to the practising dentist, is a subject which we think has been too much overlooked by the profession. Every intelligent person is ready to admit that all professional men should be liberally educated—while the dentist, an exception to the rule, if he has learned a few technical terms from some anatomical work, possesses the strength of a blacksmith, the mechanical ingenuity of a tinker, and a flippant tongue, goes forth with a few “specimens” (made by some journeyman), as a scientific dentist, when, in fact, he cannot distinguish between the normal and abnormal condition of the tissues, and in the majority of cases, if called upon, could not discriminate between neuralgia and odontalgia.

Dentistry has always been too much looked upon as a trade, in which mechanical talent is alone called into action, and only a moderate share of that; the result is, too many have been induced to enter into it with the (vain) hope of learning all there is to be learned in a few months, at a trifling expense, with the expectation of a fortune in a short time. This ambitious desire to make money, at the expense of life, or limb, or both, is much to be deprecated. A man who has no higher motive than money-making, is unfit to be placed in so responsible a position as that of a dentist or a physician.

We have dental societies and colleges now, and we expect to see, ere long, a distinction between the scientific dentist, and the semi-ignorant practitioner. It will take time, patience and perseverance, on the part of the profession to accomplish this end, and these institutions will do much to forward it; able men are in the work, and it must succeed. Then, and not till then, will dentistry be exalted to that position which the scientific portion of the profession are aiming for, and which it is destined sooner or later to attain.

Our plan is, that young men, before entering the profession, shall finish their English and classical education; for we assure them that a sound classical education will open stores of learning to them, which are sealed books to others. Technical terms abound very luxuriantly in the different branches of our science, and these have nearly all been derived from the classics. Their acquisition is always a matter of difficulty to the English scholar, but that difficulty is much lessened if the student is familiar with the Latin and Greek. They will find

that there is a great deal to be learned from the ancient authors, far more than enough to encourage them to read them in their original tongues.

There are many valuable works written on surgery, chemistry and dentistry, by the French and Germans, and we lose much valuable information if we are unable to read these languages. A general knowledge of the sciences is of great importance to the dental surgeon, and will furnish him with invaluable assistance in diagnosing. The object of all science is to discover facts and trace their relations; and unless we are acquainted with them, our judgment must be limited. They strengthen our minds and enable us to determine what any series of effects and causes will have upon each other, which is our great duty in investigating the cause of disease, and the application of the remedy.

We should also gain by every means an accurate knowledge of facts, and enlarge their number to the utmost possible extent; and beyond this, we should strive to obtain a habit of discerning the dependence of facts upon each other, and the whole upon general principles.

The mechanics of the human body is a subject of great interest, and will furnish the most perfect models for imitation; the varied action of the muscles are in harmony with the action of levers universally, for these laws have been deduced from the operations of nature, of which we have the most perfect illustration.

The science of acoustics is an invaluable aid to us in the physical examination of the lungs, heart, &c., and we now look to that science to resolve certain doubts which still envelope the subject.

Optics is another important aid. The benefits resulting from the use of the microscope in the study of anatomy and physiology, and the practice of medicine, is truly astonishing. A distinguished London surgeon says, "the smallest portion of a diseased structure, placed on the field of the microscope, will tell more to the experienced eye in one minute, than could be acquired from a week's examination of the crude mass of disease, as preserved in any museum." The same may be said of other branches of science.

The different temperaments, habits and modes of living are objects of vast importance, and should be well understood. The same medicine will often produce different effects upon different constitutions. *Exregesis*, The administration of an emetic in one constitution will

produce free emesis, while in another it may produce violent cramp in the stomach. Again, a cathartic given on an empty stomach will generally purge freely, but if given after a full meal will arrest digestion, and often produce nausea and vomiting. A slight wound in one person may heal by the first intention, while in another it may result in traumatic tetanus and death !

A general knowledge of the different branches of medical science is of infinite importance to the dentist, and without it he may not expect to excel. The sciences of medicine and dentistry are so intimately connected with each other, that to separate the one from the other is to clip the branches from the trunk. The treatment of all diseases of the mouth, and the performance of all operations in that cavity, belong peculiarly to the dental surgeon; but if he is ignorant of said branches, it would be extremely dangerous for him to operate for a cleft palate, to extract a tumor, or to excise a superior or inferior maxilla, especially when we consider the difficulties which attend these operations, and the many vital structures which it is necessary to divide. But why call ourselves dental surgeons, if unable to perform a greater operation than the extraction of a tooth or a scarifying of the gums? If our knowledge in surgery extends no farther than this, it is very little if any superior to blacksmiths and barbers, who occasionally do the same.

We should also strive to obtain a thorough knowledge of physiological and morbid anatomy, so as to be able to diagnose correctly. We should examine the disease as far as needful for our purpose, and extend our views as far as possible to every thing that has a connection with it. There are many advantages to be derived from it.

1. It will be the means of suggesting to our minds the true nature of the disease.

2. It will enable us to solve any difficulties which may present themselves in its treatment.

3. From our thorough knowledge of the disease, we will be better prepared to treat it according to the principles of our art.

This habit of conceiving clearly and diagnosing correctly, is not to be learned from any set of rules, though these will assist and place us on the right track; but it is observation and practice which must form and establish this habit. We can then, as it were, with ease grapple with any disease which may present itself, our minds will soon become offended with obscurity and confusion, and restrained from rash

judgment. If we adopt this course, we shall treat cases with credit to ourselves, and satisfaction to our patients. Being posted up in every branch directly or indirectly connected with our profession, we shall be prepared to resort to every expedient that science has placed in our hands; and when we fail in any case, shall have the satisfaction of knowing that we have done *all that could be done*.

Every practitioner is aware that in many cases in which he is called upon to prescribe, he has no precedent. In such cases, the skilful practitioner is seldom at a loss; he knows what is dangerous and what is not, what the constitution will bear and what it will not, and governs himself accordingly.

The man who treats symptoms, as such, is an empiric; while the one who labors to remove the cause is a philosopher. The one noticing pain in the head and face, immediately prescribes for neuralgia, while the other patiently challenges every part of the constitution to discover latent inflammation or local irritation, and having found it, proceeds at once to remove it—knowing full well that the effects may be expected to subside, when the cause has been removed. The former is perfectly satisfied that pain and soreness in a sound tooth result from exostosis, and proceeds at once to extract it; while the latter, diligently seeking the cause, ascertains the pain to be sympathetic, and arising from a gravid state of the uterus. This habit is necessary at every step of our professional career. And not even in the simplest cases can we efficiently discharge our duties to our patient and ourselves without it. It is the very basis on which the practice of our art rests. The cultivation of it is raising our profession to the dignity of a noble art; the absence of it would reduce us to the position of charlatans.—*Boston Medical and Surgical Journal*.

TAPPING THE ABDOMEN OF A YOUNG INFANT.—In the Medical Society of London, Dr. Winn stated he had tapped the abdomen successfully in an infant only nine weeks old. It suffered from dropsy, diarrhoea, and deficient action in the kidneys. As medicines produced no effect, a small trocar was used, and about a quart of a peculiar, milky-looking fluid drawn off. The operation had to be repeated at the end of three weeks for a re-accumulation, and the little patient died from hemorrhage. An enlarged friable liver was no doubt the cause of the peritoneal effusion—the other organs, apart from an æmemic condition, were found in a normal state.

EXTRACTS FROM PIGGOT'S DENTAL CHEMISTRY
AND METALLURGY.

THE TEETH.

It is essential to every one who would deal properly with these beautiful organs, that he should understand not only their anatomical structure, but also their chemical relations to the various substances which surround them. Such knowledge as this, of course comprises the chemical constitution of the teeth themselves and of those fluids which constantly bathe them.

A consideration of the minute anatomy of the teeth, does not, of course, fall within the scope of a volume like the present; yet, as the chemical composition of the different components of these organs varies very considerably, a glance at their structure is necessary. Suffice it to say, that three distinct anatomical histological elements can be demonstrated in the teeth; the *dentine* or ivory, which consists of cylindrical and branching tubuli, and composes the bulk of every tooth; the *enamel*, which coats the exposed surfaces of these organs, and is arranged in hexagonal prisms; and, finally, the *cementum* or *crusta petrosa*, which contains lacunæ, and corresponds in all essential particulars with bone. In a perfectly healthy state of the teeth and gums, the enamel is the only one of these portions which, in man, comes in contact with the fluids of the mouth; but when, from any cause, the gums have receded, or the enamel has been worn away, the dentine is exposed to the same agents which should only operate upon the enamel. The *cementum* or *crusta petrosa* is far removed from these influences, lying at the bottom of the fang. All these substances, of course, consist of animal membranes, holding earthy matters. A dilute mineral acid will dissolve out the calcareous salts, leaving the animal matter behind. It will then be observed that the enamel contains the least organic matter, the dentine considerably more, and the cementum most of all.

LUTES.

The term lute is derived from *lutum*, mud, and is used to express any substance employed for closing the joints of a chemical apparatus. The only lutes with which we have any concern at present, are the *fire-lutes*. These are used to secure the joints of apparatus subjected to high furnace-heats.

Parker's fire-lute is composed of clean clay 2 parts, sharp-washed

sand 8 parts, horsedung 1 part. These are intimately mixed, and afterwards thoroughly tempered.

Watt's fire-lute is made of finely powdered porcelain clay, mixed to the consistence of thick paint, with a solution of borax, containing 2 ounces of borax to the pint of water.

Farady's lute is made of the best Stourbridge clay, worked into a paste, and beaten till it is perfectly ductile and uniform. It is then flattened out into a cake, of such a size and shape as shall be most easily applied to the vessel to be coated. If this be a retort, it should be placed in the middle of a cake, which should be raised upon all sides, and gradually moulded and applied to the glass; if it be a tube, it should be laid upon one edge of the plate, and applied by rolling the tube forward. The surface to be coated should always be rubbed with a piece of the lute dipped in water, for the purpose of slightly moistening it and leaving a little of the earth on it. The lute should be pressed down so carefully as to exclude all air-bubbles, and the greatest care should be taken to join the edges properly, for which purpose they should be made thin by pressure, and also somewhat irregular in form.

The vessels, thus luted, should be placed in a warm situation, and very gradually dried, being moved from time to time, so as to prevent irregularity.

The introduction of fibrous substances, so as to increase the tenacity by mechanical means, has been practiced. Of these, horsedung, chopped hay and straw, horse and cow hair, and tow cut short, are most frequently employed. When used, they should be added in small quantity, and the mixture should contain more water and be more thoroughly and carefully mixed. It is best to add the fibrous substance to the dry clay, and to stir with a fork or pointed stick whilst the water is poured in, so as to obviate the necessity of using a great quantity of water. It ought to be as dry as possible, consistently with facility of working it. The wetter it is, the more liable it is to crack in drying.

Willi's cement, already spoken of, is made by dissolving 1 ounce of borax in half a pint of boiling water, and adding slaked lime enough to make a paste. This is to be spread over the vessel with a brush, and when it is dry, a coating of slaked lime and linseed oil is to be applied. It will be in a day or two, and be fit for use.

GOLD CARATS.

The standard of the alloy of gold is expressed, in mercantile phraseology, by *carats*. The term is said to be derived from *kuara*, the name of a sort of bean, the fruit of a species of *erythina*, in the province of Shangallas, in Africa. This name signifies, in the jargon of the natives, the sun, the tree which bears this bean producing flowers and fruit of a brilliant flame color. The pods of this plant, being nearly uniform in their weight, have long been used by the natives in weighing gold-dust, which is sold in large quantity in this province. From Africa, say the etymologists, from whom we take this account, the beans were exported to India, where they were used for weighing diamonds. The diamond carat, however, differs in weight from the gold carat. The former weighs four nominal grains, each of which is equivalent to .989 grain troy. The gold carat, on the other hand, which is also applied to expressing the purity of alloyed silver, is usually of mere proportional weight, having no definite value. Sometimes, however, a definite weight is spoken of when the term carat is used, and then it means 12 grains. When the proportional carats are used, the entire mass is supposed to be divided into 24 parts, each of which is a carat. When great exactness of expression is required, these carats are each divided into 32 parts, so that the entire mass is divided into 768 32nds. Absolutely pure gold, of course, has the whole weight of the mass without alloy, and is therefore said to be 24 carats fine, or simply fine. Should the mass contain one part of silver or other metal, it will be called 23 carats fine. The mercantile expression for the fineness of gold, therefore, simply indicates the number of twenty-fourths of the entire mass, which consist of the pure metal. A more scientific method, however, of rating these is to express the proportion of the precious metal in thousandths. Thus, when we say that standard American gold has the fineness of 900 thousandths, we mean that, in every thousand grains of the coin there are 900 grains of pure gold, the remainder being a variable mixture of silver and copper, generally, however, in the proportion of 25 to 75.

Miscellanea.

INCOMBUSTIBLE WASH, AND STUCCO WHITE-WASH.—The following preparation has been recommended as of great value, in several of our exchanges, but appeared originally, we believe, in the Railroad Journal. We give it to our readers as we find it. Some of our acquaintances have used it, and value it highly.

The basis for both is lime, which must be first slacked with hot water, in a small tub or piggin, and covered, to keep in the steam; it then should be passed, in a fluid form, through a fine sieve, to obtain the flour of the lime. It must be put on with a painter's brush; two coats are best for outside work.

First. To make the fluid for the roof, and other parts of wooden houses, to render them incombustible, and coating for brick-tile, stonework, and rough-cast, to render them impervious to the water, and give them a durable and handsome appearance. The proportions in each receipt are five gallons. Slack your lime as before directed, say six quarts, into which put one quart of clean rock-salt for each gallon of water, to be entirely dissolved by boiling, and skimmed clean; then add to the five gallons one pound of alum, half a pound of copperas, three-fourths of a pound of potash—the last to be gradually added; four quarts of fine sand or hard-wood ashes must also be added; any coloring matter may be mixed in such quantity as to give it the requisite shade. It will look better than paint, and be as lasting as slate. It must be put on hot. Old shingles must be first cleaned with a stiff broom, when this may be applied. It will stop the small leaks, prevent moss from growing, render them incombustible, and last many years.

Second. To make a brilliant stucco white-wash for the buildings, inside and out. Take clean lumps of well-burnt stone-lime; slack the same as before; add one fourth of a pound of whiting or burnt alum, pulverized, one pound of loaf or other sugar, three pints of rice-flour, made into a very thin and well-boiled paste, starch, or jelly, and one pound clean glue, dissolved in the same manner as cabinet-makers do. This may be applied cold within doors, but warm outside. It will be more brilliant than plaster of Paris, and retain its brilliancy for many

years, say from fifty to one hundred. It is superior; nothing equal. The east end of the President's House, in Washington, is washed with it.

CHANGE IN THE TREATMENT OF INFLAMMATION.—Mr. Erichsen, Prof. of Surgery in the University College of London, recently declared that he scarcely ever found it necessary now to bleed or give depressing remedies in the treatment of surgical inflammations, but found that patients required stimulants, good food and tonics. He said this practice was now general among the profession, and that it did not depend upon fashion, &c., but was owing to an alteration in the constitution of patients, or some other causes. The antiphlogistic treatment of the present day differs widely from that found necessary fifteen or twenty years ago.

PROPERTIES OF IRON.—In the concluding lecture of Prof. Smith, at the Smithsonian Institution, the lecturer dwelt on the tendency of iron to undergo a change from a fibrous to a granular condition—thus causing the abstraction of an indefinite amount of its tenacity and strength. Fibrous iron, by being for a considerable time subjected to concussion, will become granular and therefore weak. A knowledge of this principle has induced the French government to disallow the use of iron axles on their public diligences beyond a certain time; they must then be removed. Iron cannon, originally very strong, become weaker and weaker by use, from the loosening of the texture of their substance.

MERCURY IN DISEASES OF CHILDREN.—I have never undertaken to salivate a child under eight years old, or even to bring him so far under the influence of mercury, that the breath and gums might be affected in the slightest degree. That divine old man, Dr. Rush, used to caution us against attempting to salivate children under six years of age; and there now lie before me some notes, written by myself, from his own mouth, in which notes are these admonitory words:—"Salivation is forbidden in children under six years old, for their tender jaws are not able to withstand the powerful stimulus of the mercurial anguish; they run into gangrene."—Dr. S. JACKSON, in *Trans. of Phil. Coll. of Physicians*.

EXOSTOSIS OF THE ROOT OF THE FIRST LOWER LEFT GRINDER.

BY EDWIN KREONELE, DENTIST, LONDON.

[Translated from "Der Zahnarzt," (The Dentist), Berlin, January, 1854, C. Schmedicke, Editor, for the Recorder, by O. S. FERRY, Esq.]

The following case of long suffering, occasioned by an exostosis of the root of the first lower left grinder, came to my knowledge during the last summer. Since the extraction of the tooth the patient has been entirely free from the pains in the mouth and the supervening inflammation of the eyes.

At the time that I ordered leeches I did not even conjecture that an exostosis might be present, but supposed that the pain proceeded from an inflammation of the periosteum of the fang.

J. M., a man 25 years of age, consulted me about a pain in his face, which proceeded from the first lower grinder on the left side. Upon examination the tooth appeared somewhat loose and I observed considerable inflammation in the gum. I was, therefore, unwilling to extract it, but ordered leeches to be applied to the spot, and at evening a cathartic. The next day the patient again called on me with the firm declaration that he would have the tooth out. As he had not complied with the order of the preceding day on account of a decided aversion to leeches, the pain had not left him for a single hour in the interim.

The tooth made considerable resistance in its extraction, but the reason of that soon appeared. An alleviation of the pain was immediately produced, which has been of permanent continuance.

The history of this case was instructive. The affected tooth with others near it had been filled six years previously. By the removal of the decayed substance the membrane of this cavity was laid bare. The operation of filling also was delayed, till the exposed membrane should contract and disappear. For this purpose simple spirit of camphor was used, and with the best results. Before the insertion of the stopping, with which the tooth was to be filled, the opening leading into the cavity was protected by a gold capping. The tooth now appeared entirely serviceable, and for two or three years occasioned no more trouble; after that period, however, it produced a kind of deadened pain, and the gum became more or less inflamed, if the patient exposed himself to dampness or other influence of cold. When the

symptoms became severe, they lanced the gum, which ordinarily produced relief for a considerable time.

After the lapse of four years his eyes, especially the left, became inflamed in consequence of an attack of the disorder of this kind, which troubled him for so long a period that he was obliged to abandon his business. His surgeon, who had no knowledge of the irruption of the tooth, treated the inflammation locally and generally, but with very doubtful results. Such was the case to which I was called.

About four months before I saw the patient an abscess had formed on the left side of the throat. The surgeon sought in vain for the cause of the difficulty; he had suspicions of one of the teeth, but as his patient could discover no connection between that and his eyes and throat, he did not inform the surgeon that he had formerly suffered from the same one, that it had been filled, and that, as all the teeth had been carefully plugged, he would not attribute the fault to one alone. At last a change of air and a journey to the continent were ordered. In this journey, in consequence of the influence of the weather, a severe cold commenced which occasioned acute pain in the affected tooth as well as increased inflammation of the eyes, the result of which was that upon his return to London the extraction of the tooth was resolved upon.

Immediately after the extraction of the tooth the pain in the face remitted, the inflammation of the eyes grew better, and the abscess began to heal. In a short time he was entirely free from his disagreeable and painful companions, and has ever since remained so.

From this case arises a very natural enquiry, viz: If teeth be filled, after a portion of the membrane has been exposed by decay, and this portion has been caused to shrink by the application of a tincture, does this operation occasion peculiar injury?

In the foregoing case, this treatment comes into practical application; the result is before us; what shall be the inference therefrom? Or would it be to impute too much importance to a single case, in which such a succession of diseases followed one another? I have my own opinion upon this point, and I believe that the question should receive the gravest consideration of dentists.

Correspondence.

IMPROVED SETS OF ARTIFICIAL TEETH.

EDITOR RECORDER:—I have made an improvement in sets of artificial teeth which must revolutionize to a great extent that kind of business, and will be of much interest to every Dentist, as well as to the community generally.

It is an improvement which I have just patented in this country, Great Britain and France, and consists chiefly in making whole or half sets of artificial teeth all of porcelain, without the use of any metallic plate, and a half set to consist of but one piece of material.

Many advantages arising from this, immediately suggest themselves. In the first place, a set made in this way will be a *neater* or more perfect manufacture than can be made in any other way; they cannot become impure—even with the utmost negligence they will keep themselves perfectly clean. Again, the expense of making them in this way is so comparatively small, that they may be afforded at a greater profit, at one half the price of sets made in the usual way. The labor and time required for making a set of teeth in this way is incomparably less, and dispenses at once with a multiplicity of tedious operations. I have fitted the most difficult gums with all the ordinary ease and accuracy, and several sets which I have made of this style have now been in use a year, answering every requirement, besides possessing many other self evident advantages.

I know from experience, that no dentist will ever go back to other methods after he has once made use of this. And *no* person who wears artificial teeth will ever wear any others when they have tried or seen these; for they have but to be seen and they evince their own superiority. That this way of making sets of teeth has long since been thought of, there is little doubt, but its practical availability is now made manifest.

MAHLON LOOMIS.

Cambridgeport, Mass.

PRIZE ESSAY ON DENTAL SURGERY.

MR. EDITOR—You will please insert in the Recorder the following, from the proceedings of the "Mississippi Valley Association":

Resolved, That this Association will award one hundred dollars to the Author of the best Essay, (not previously published,) on Dental Surgery, *adapted to popular circulation*, to contain not less than fifty nor more than seventy-five pages duodecimo; the copyright to be the property of the Society. Said Essay to be approved by a Committee, and by it to be printed and issued to the members of the Society, and receive the approval of the Association before it be published for general circulation.

Resolved, That a Committee of five be appointed by ballot, to examine the Essays presented, and report at the next meeting.

Essays competing for said award to be forwarded to the Chairman of the Committee as early as January 1st, 1855.

Election of said Committee was had, and the following Gentlemen appointed: JAS. TAYLOR, W. H. GODDARD, A. BERRY, A. M. LESLIE, and J. TAFT.

N. B. Authors sending Essays under the above resolutions, will accompany it with their full signature and address, which they will enclose in a sealed envelope, which will be opened should the accompanying Essay prove the successful one; otherwise, it will be returned with the manuscript.

GEO. WATT, Cor. Sec'y. M. V. A. D. S.

LUSUS NATURÆ.

The following remarkable and interesting case, a drawing, model and description of which has been sent to us, is worthy of attention, and is indeed a novelty. The case is worthy to be illustrated with a cut, but we have not time to do this in making up the present No. We thank Dr. Sanborn for his report.—*Ed. Rec.*

MR. EDITOR:—As you solicit from the members of the profession contributions that shall advance the cause, either by "Practical Hints" or "Reports of Interesting Cases," I have made a rough drawing and enclose a plaster cast of a tooth I extracted for a young lady, the like of which I have never seen noticed in any dental work.

It is a superior third molar, with two crowns developed from three roots, and appears somewhat like the ossific union of a supernumerary with a third molar. But such is not the case, for the nerve exposed by decay of the main crown ramifies to the three roots in the usual manner, which would not be the case in ossific union of two teeth. Several of my professional friends have examined the tooth, and among them Dr. B. S. Codman of Boston, and they are of the above opinion.

Respectfully yours,

Beverly, June 2d, 1854.

J. F. SANBORN.

Editorial.

AUROPLASTIC BASE FOR ARTIFICIAL TEETH.

Since the publication of our former articles upon this subject, we have been giving attention to certain experiments with this material, the result of which is a decided conviction upon our own mind of its great convenience and utility. We have introduced some new experiments which we doubt not will contribute to make the operation still more valuable.

But that which gives us most satisfaction, and augurs most favorably as to the ultimate success of the thing is *the fact* that this compound *actually hardens in the mouth*, under the influence of its various fluids, instead of dissolving or softening, as was first anticipated. We have in our possession some specimens which have been worn several months, which bear a strong resemblance to *bone* itself. Indeed it is little less than bone in its chemical composition. Further than this, when due pains and care is taken to keep them clean, they are entirely free from fœtor, and as sweet and cleanly as any other kind of artificial teeth. Indeed much more so than many pieces which we have seen where teeth are mounted in the old style. In these two particulars we must confess to a most agreeable surprise.

In the third place, we have never yet found an instance where soreness of the mouth or irritation have been produced by this material, other than that which is simply mechanical. And such cases are far more easily avoided with this material than with any other now known to the profession.

In the fourth place, we find that the teeth are easily and firmly retained by this compound, with all the disadvantages of a want of adaptation and fitness for such a base. Were the teeth made with reference to it, as they are with reference to other modes of setting, there would not be the slightest ground for doubt or suspicion on this score. This, however, is a circumstance which can be easily met.

What then shall hinder the success of this new mode of setting teeth? We answer, that for *temporary* purposes *nothing shall hinder*. And we feel a strong conviction that for permanent operations it will not be found to be destitute of real merit in all cases. It

is in fact a *plan* "for the million." It accommodates itself to the circumstances of thousands, who are really unable to furnish themselves with artificial dentures of a more costly and expensive kind, and *will answer a most valuable purpose in such cases.* And when a few more years of experience with it shall develop the almost inevitable improvements which are sure to be realized, we may regard it as a boon to the profession and to mankind of no little worth.

This base is nothing more nor less than the composition known as "*Hill's Stopping*," save as a little coloring material is superadded to imitate artificial gum. And the only thing lacking to make the operation really beautiful, is to perfect a composition for the gum which will not change color. This we hope to achieve before a great while, as our attention is now directed more especially to this single point.

We believe that the whole piece may be covered with a beautiful deposit of gold by the electrotpe process, although we have not yet seen it accomplished. This, of course, would impart a beautiful finish to the whole piece, which at present it does not possess. But whether it would add anything to its real utility remains to be seen.

We shall now describe, as well as we are able with the pen alone, the process of using this material. Premising at the same time, that five minutes personal manipulation and instruction would go farther to simplify and make the process understood than all we can write upon the subject.

We have received various communications upon the subject since our letter to Dr. Harris, published in the Jan. No. of the American Journal, and from various parts of the country. We shall now endeavor to meet these inquiries as well as we are able under the circumstances.

In the use of this material, the first thing to be done is to secure a good plaster model of the mouth. Of course it should be as near perfect as possible. When this plaster model is dry, take a small pencil brush and paint over its surface with good olive oil, to prevent the plaster from adhering to the compound. This is important, and oil is much better than varnish for this purpose. This done, the next thing is to cut a pattern for your plate, just as if you were going to use gold or any other material. It may be of sheet lead, zinc or paper. Next take "*Hill's Stopping*," *rolled smoothly down to a thin sheet.* It may be nearly as thin as heavy gold plate, especially if it be desi-

able to make the piece very light. This may be accomplished as follows: Get a smooth marble slab, say 10 or 12 inches in length, by 8 inches in width, and an ordinary rolling pin, such as women use for pie-crust. Now dip the compound into clean hot water, lay it upon the marble slab, and roll it out as thin as you desire. By the use of *hot water* the compound may be softened at pleasure. Having your compound rolled out thin as may be desired, lay your pattern upon it, mark it with a pencil, and cut it out with ordinary scissors. It is now ready to be moulded to your plaster model.

For this purpose have a vessel of clean hot water, dip the compound into it and let it soften, then carefully lay it over the model, and with thumb and finger press it down firmly until it becomes a perfect fit. When this is done, take a sheet of *fine wire cloth*, such as is used for making sieves or strainers, either iron, steel or brass, (the iron is least objectionable)—place your *pattern* over it, mark it out a little smaller than the pattern, so that the edges may all be covered up, and cut it out in the same way that you would cut out the original base. Then bend it over the model, shaping it as you like; when it is shaped to your liking, heat it, and press it firmly upon the base, until every part is held by that material and imbedded in it. This done, cut a covering for it precisely in the same manner as before out of the rolled compound, dip it into the hot water and lay over the whole, pressing firmly down as before.

If this has been carefully attended to you will now have a neat, substantial base, ready to be tried in the mouth. Any alteration now can be easily effected. The edges may be trimmed with a pen knife, or in any way added to or diminished, as circumstances require.

If it be found to fit the mouth accurately you may then proceed as follows: Replace it upon the plaster model, and cover the alveolar ridge with an extra thickness of the compound, warmed, and pressed firmly upon it. It is now ready for mounting. The next thing is to mark the centre line upon the model. This done, we proceed as follows: Having selected our front teeth, we seat ourself at the bench, with the model before us and a small spirit lamp burning at our right hand. We now seize the front incisor tooth with a pair of small plyers and hold it for a moment in the blaze of the lamp, and then press it into the compound in its proper position. If heated to the right temperature this is easily and quickly accomplished. When the front incisors are in place, we try it in the mouth again to see that they are

right. If any alteration is needed it is now made. This done, we proceed with the other teeth in the same way, occasionally trying them in the mouth and antagonizing them as we desire, until the teeth are all in place. And now, all that remains, is to confirm the teeth in their places, and finish the piece. For this purpose, let them still be retained upon the model. Then take a small strip of the gum-colored compound of any desired thickness, lay it upon a clean tin sheet and hold it over the blaze of the spirit lamp until it is sufficiently heated, and then lay it all around the base of the teeth, front and back, massing it down with a *smooth, flat-pointed* instrument, heated in the blaze of your spirit lamp. A little practice will soon suggest the kind of instrument best adapted to this purpose. And thus, by occasionally heating your instrument, you may build and shape the gums in any way your taste may dictate. And by a slight admixture of various shades of the compound, the gums may be painted to look very natural and pretty in the mouth. Two or three points in this process should be carefully observed :

1st. When a *dry* heat is used to soften the material, whether it be on a plate of tin or porcelain or other substance great care should be taken *not to burn it*, as this would destroy its strength and usefulness.

2d. If *iron* or *brass wire cloth* is used, *every portion should be entirely covered by the compound*, so that the fluids of the mouth will not act upon it. Silver or gold wire cloth would be preferable, but these, perhaps, would be somewhat difficult to obtain at present.

3d. If any change in the position of the teeth is required, after they are set, it can easily be effected by holding the points of the teeth in the blaze of the spirit lamp, until they become heated, and communicate their heat to the material that surrounds them. At this juncture they can easily be adjusted.

4th. *Pivot teeth* will generally answer the best purpose for this kind of setting. And these we prefer for the upper fronts. For *under sets*, Jones, White & Co.'s continuous gums are the best. These are exceedingly neat and pretty, when mounted, as they can be, with this material. There is not the slightest difficulty in making under sets of great strength and usefulness of this kind of work. We have thus endeavored to set forth in a plain and intelligible manner, our method of using the "auroplastic base" for artificial teeth. One.

or two observations will conclude what we have to say upon this subject for the present.

Although we hold a *patent* for this compound, and this patent covers its use in any form, we shall allow any and every one to use it who may see fit to do so, *only reserving to ourself the privilege of making and vending the compound thus used.*

If any dentist desires personal instruction in the use of this material, (and more can be learned by seeing the thing done, in fifteen or twenty minutes, than in reading a volume upon the subject,) we will cheerfully show them, for a moderate compensation, if they will visit us for this purpose, charging them only for the tax upon our time.

The compound if properly used, will not be found very expensive, as it is quite bulky, and an ounce will go farther than is ordinarily supposed. We have thus taken pains to anticipate any question which would naturally suggest itself, and trust our readers will obtain hereby all necessary information in regard to "auroplastic base."

PERSONAL NOTICES.

The Recorder has been regularly mailed to Dr. A. Berry, Covington, O., and will be sent in future to Cincinnati; to Dr. E. F. Arnoux, 87 Bleeker st., N. Y., and will be sent in future to 139 Green st.; to Dr. Chas. Rahn, 1 North Audley st., Grosvenor square, London, Eng., postage prepaid.

We sincerely regret the failure on the part of any of our subscribers to receive each No. in due time. We assure them that the fault is not with us. We personally attend to the directing and mailing each No., and therefore speak with confidence. Whenever the address is changed, let us be informed of the fact, and we will change the direction accordingly.

AMERICAN SOCIETY OF DENTAL SURGEONS.

This Society holds its next annual meeting at Cincinnati. Members will convene at the Burnet House, on the first Tuesday of Aug. next, and from thence adjourn to such place as may be provided for them. The session will doubtless be one of much interest to the profession.

CORRESPONDENT'S QUESTIONS.

"Does the continuous gum material, manufactured by Dr. Allen, possess advantages over that manufactured by Miller & Stearns?"

D. S. G.

We are not able to answer this question at present, perhaps, to the satisfaction of our correspondent.

It is now nearly two years since we have seen any of Miller & Stearn's work. We understood from Dr. Miller that he was working substantially on Allen's plan. But as in the manufacture of artificial teeth or block-work, we suppose the formula of composition may be endlessly varied, according to the taste or views of each individual, and as there is a difference of opinion in regard to the comparative merits of the teeth manufactured by different individuals, so there is likely to be the same difference of opinion in reference to the body and color of the continuous gum operation. We do not suppose that any two persons operate precisely alike in all our profession, and men differ in opinion as to the comparative merits of each. Thus it is, and will be, touching the matter in question.

Jones, White & Co., Alcock, and Stockton, each and all manufacture an excellent article in the teeth line, and each have their special admirers and patrons. So of others. Now, individually, we like Allen's gum composition exceedingly. But we are not sure that Miller & Stearns do not prepare a compound of equal merit. We suppose that Dr. D. H. Porter differs from both, and yet we *know* his is excellent.

After all, our correspondent must judge for himself.

J. H. H. will probably find satisfactory answers to his questions by consulting an article from the pen of Dr. Harris, entitled "A Dissertation on Diseases of the Dental Pulp and their Treatment," as published in the American Journal of Dental Science, or a synopsis of the same published in the June No. of the Dental Recorder. Those of our subscribers living remote from our great cities, and necessarily deprived of many facilities for information on professional subjects, need feel no delicacy in soliciting information of us at any time. We shall take pleasure in communicating any information touching matters of professional interest as far as we are able.

THE AMBLER MEDAL.

A communication from Dr. C. C. Allen, touching certain points in Dr. Parnly's statement in the April number of the *New* Letter, will appear in our next issue.

IMPROVEMENT IN ARTIFICIAL TEETH.

Our readers will not fail to notice a communication from Dr. Loomis, of Cambridgeport, Mass., in this No., announcing to the profession what he considers a great improvement in artificial dentistry. On the receipt of this communication, we addressed certain interrogatories to the Doctor, touching those points which seemed to present to our own mind the greatest difficulties in the way of his success in this new method, to all of which he responds with the utmost confidence. He says—"Trying in this thing, is knowing, and there is really no 'if' about its success, for it *does succeed*." * * * "In fact I defy any and all objections to prevail against it."

The most we can say about it is, we have seen some of the specimens, and they look well *out of the mouth*. They are very strong—not more than half as heavy as the continuous gum work of Dr. Allen's mode, and if they can be fitted with ease and certainty, we shall think that Dr. Loomis has attained the *ultimatum* in artificial dentistry. *Three cheers for Yankee doodle-dom!*

CHANGE OF PROPRIETORSHIP.

The attention of subscribers is called to the prospectus on the last page of the cover, giving notice of a change which has been made in the publishing department of this Journal. Dr. Hill, who so ably seconded Dr. C. C. Allen, through the course of the last volume, and whose arduous and unassisted exertions in the editorial supervision of the present volume, have, we hope, been duly appreciated by its many readers, will retain the same position for a short time to come, and afterwards, will, without doubt, continue to enhance the attractiveness of our pages, by articles from his fruitful pen.

To subscribers who are in arrears, we urge the immediate necessity of remitting, *without delay*, the amount of their dues, and thus enable us to consummate all our projected improvements, and make the Recorder second to none in interest and value, not only to the profession, but the general reader also. We shall shortly notify delinquents individually, and can then judge by the returns we receive, what the feeling is in relation to continuing with us.

S. & R.

New-York Dental Recorder;

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

Vol. VIII.]

AUGUST, 1854.

[No. 8.

From the Dental Register.

PRACTICAL THOUGHTS ON TOOTH-DRAWING.

BY C. T. CUSHMAN, D. D. S.

No. III.

"The various conditions of the teeth, which may create necessity for their extraction, produce equally great variety in the difficulty or ease with which the operation may be performed."—*Fox*.

"Though this operation may appear simple and easily performed, it however generally requires great experience, address, a correct knowledge of formation of the mouth, and the various peculiarities which are met with in the teeth, and their arrangement and diseases."—*Gariot*.

Extraordinary difficulty in extracting a temporary tooth. Anomalous specimen. CASE IX.—Master M—, at 4 years; nervo-lymphatic; was presented March 23d, 1852, to be relieved of a diseased tooth, the right superior lateral-incisor.

Although he was not suffering acute pain from it, he complained of it occasionally, and his mother declared it to be so offensive that it was unpleasant to have him about her.

A glance at it showed that it was no common case. High up under the lip, and just over the apex of the root, was a flattened tumor of the gum, as large as a rifle-ball, hanging by a little pedicle.

On lifting this up with a probe, the end of the root could be seen through a small opening made in the socket by the discharging pus.

The tooth *was* offensive—so much so that a strong odor was imparted to the fingers in handling about it. Its history, so far as known, is interesting.

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No. 2.—Illustrating the same. A rare pathological specimen.

CASE XI.—Servant man, aged about 28; teeth large, white, and naturally clean; came to have his left superior molar extracted. A dentist, also a heavier man than myself, had exerted his strength on it several times, three I believe, and given it up. It was as firm as ever.

I never felt more sincere sympathy for the ruin of a tooth than in this case. So large, so clean, and apparently so sound! However, a decayed opening was found in the crown, partly on the approximal and partly on the opposing surface. And *that* opening! It extended freely into the pulp-cavity, and I could look directly into the palatine root. It appeared full of red blood, and the surrounding gum attested a high degree of acute inflammation.

He had suffered *intensely* with it. But I was unwilling to extract such a noble-looking tooth. I probed the cavity and encouraged the bleeding; it bled freely. Subsequently, for several days I applied every approved remedy I could think of to allay the inflammation, in the hope of plugging it finally, in some way, making it useful again and preventing the sacrifice of the tooth. But all in vain.

He returned again, and again, to be relieved *radically*. I applied the key. I extracted it with one effort only. No injury resulted to the socket, and no pain was complained of. Such roots! Three prongs triangularly diverging in a straight line from base to apex. The measurement was as follows: diameter of neck,

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$\frac{1}{2}$ inch; longest line drawn from apices of palatal and buccal roots, $\frac{3}{4}$ inch. The degree of inflammation may be inferred from the following fact: A large portion of the roots, and crown about the neck, is beautifully injected with bright arterial blood; making the tooth one of the most valuable and demonstrative specimens of the kind I had ever seen.

Superiority of the key over forceps for extracting a tooth that is deeply decayed on one side. It will extract quicker. The operator making use of the sound side, need not prolong the operation, as he would necessarily do with the forceps, through well-grounded apprehension of crushing. With the forceps, if he succeeds at all, he thus inflicts much more pain, and, not unfrequently additional anguish by forcing one beak into the sensitive nervous pulp.

CASE XII.—*Ibid.* August 20, 1851. Servant woman of Dr. B——; tooth the second right inferior molar. Applied the Harris forceps carefully to the neck—lingual side of the tooth crushed in without loosening. Substituted the key-bolster inside, extracted it instantly, with very little pain. This was certainly preferable to persisting in painful trials with the forceps for the sake of consistently saying, “I never use aught else.” “I repudiate the barbarous turn-key,” &c.

The key for the superior bicuspid.—I have said, for this class of teeth I prefer the key. I not only give myself more satisfaction in its use, but also to my patients, as they suffer less pain. The very form of the roots of these teeth, conical and wedge-shaped, favors the use of the instrument, by offering an inclined plane for the lateral extraction.

Affording increased power, the operation is briefer, and consequently less painful. Using the forceps, I have occasionally been obliged to stop and rest after “a long pull,” in extracting the superior bicuspid. With the key, not unfrequently do these teeth fall in my patient’s lap. If the bolster, broad and flat, be padded with a fine napkin, its pressure on the gum is not complained of.

It is not always, however, that the key will succeed with these teeth. If the crowns are gone, the roots much hollowed out by decay, and brittle as a consequence, the screw is perhaps the on-

S P O N G E G O L D .

Mr. A. T. Ennis, Dentist, of Oxford, N. C., in a letter to us, asks whether sponge gold will answer to fill up cavities which have been imperfectly filled with foil, as well as many other questions relative to its properties as a substance for filling teeth. To answer many of these inquiries, we would respectfully refer him to the April number of this Journal, where he will find two able papers on sponge gold, by Drs. Townsend of Philadelphia, and Ballard of New York; and also in the April number of American Journal of Dental Science, by Dr. W. H. Dwinelle. We have been using the various specimen of sponge gold some time, and while we do not wish to go off in ecstasies about its peculiar qualities over gold foil, in being capable of being rolled out into plate or wire, the same as melted gold, we would say that it can be applied in some cases very well, but it will take time to decide as to its comparative merits with gold foil. That sponge gold will weld, and roll into plate, does not make it *necessarily* better than foil, for the reason that packing it into a cavity and rolling it out into plate are two things. When it is put into a cavity in mass, it cannot be made hard or dense to any distance below the surface, and if it is used in small particles it requires too long a time to fill a cavity, and as it requires so long a time, the mouth, as a general thing, becomes too wet to allow the plug to be finished—and without great care it cannot be made to adhere again, so as to continue the completion of the plug; and if the plug can not be made much more solid than a foil plug, it will not remain in the cavity as well. The dampness of the mouth or the tooth will break up the *texture* of the plug, and cause it to crumble out. We have had this to occur with us in many instances, and it has also occurred to others, who are much in favor of its use. We have had, on several occasions, to remove plugs of this preparation, on account of the teeth giving trouble after they were plugged, and found that the internal portion of the plug had become soft, or, as was remarked by a friend, like brick dust. An *ordinary* foil plug is much better than a *good* sponge plug. We have plugged some large cavities on the

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Mr. A. T. Ennis, Dentist, of Oxford, N. C., in a letter to us, asks whether sponge gold will answer to fill up cavities which have been imperfectly filled with foil, as well as many other questions relative to its properties as a substance for filling teeth. To answer many of these inquiries, we would respectfully refer him to the April number of this Journal, where he will find two able papers on sponge gold, by Drs. Townsend of Philadelphia, and Ballard of New York; and also in the April number of American Journal of Dental Science, by Dr. W. H. Dwinelle. We have been using the various specimen of sponge gold some time, and while we do not wish to go off in ecstasies about its peculiar qualities over gold foil, in being capable of being rolled out into plate or wire, the same as melted gold, we would say that it can be applied in some cases very well, but it will take time to decide as to its comparative merits with gold foil. That sponge gold will weld, and roll into plate, does not make it *necessarily* better than foil, for the reason that packing it into a cavity and rolling it out into plate are two things. When it is put into a cavity in mass, it cannot be made hard or dense to any distance below the surface, and if it is used in small particles it requires too long a time to fill a cavity, and as it requires so long a time, the mouth, as a general thing, becomes too wet to allow the plug to be finished—and without great care it cannot be made to adhere again, so as to continue the completion of the plug; and if the plug can not be made much more solid than a foil plug, it will not remain in the cavity as well. The dampness of the mouth or the tooth will break up the *texture* of the plug, and cause it to crumble out. We have had this to occur with us in many instances, and it has also occurred to others, who are much in favor of its use. We have had, on several occasions, to remove plugs of this preparation, on account of the teeth giving trouble after they were plugged, and found that the internal portion of the plug had become soft, or, as was remarked by a friend, like brick dust. An *ordinary* foil plug is much better than a *good* sponge plug. We have plugged some large cavities on the

buccal surfaces of the molar teeth, and polished them well, and made them as hard as we knew how, and we can apply as much force as almost any other dentist, having a goodly share of muscular strength, and then applied the plugging forceps, and cut the plugs to pieces.

It is believed by some, that a plug must be *impervious* to dampness; this cannot be, or if it were, it would not be necessarily a perfect plug; dampness must permeate a plug to some extent, or the dampness will force around the plug, and displace it sooner or later. We know well that a distinguished operator in our city loses more *hard* plugs than *soft* ones, on that account; his plugs are therefore better than the teeth he puts them in. We do not wish to be understood as not advocating hard plugs, but we believe the most perfect plug is one that is of about equal porosity to the dentine; with a good cavity, it will remain in longer than a harder plug, especially in the lateral portions of the teeth. A foil plug will not be broken up by such permeability, and a sponge plug will. No reasonably good operator loses a plug by softening, but by the margins of his cavity giving way. The constant expansion and contraction of the plug and the tooth will cause any plug to give way, sooner or later, and until we get a substance that will expand and contract with the tooth, so as not to loosen its margins, we will have some of our highest specimens of art crumbling away under our eyes. J. D. W.

NEW-YORK EXHIBITION OF THE INDUSTRY OF ALL NATIONS.

The last number of volume 7 of the Recorder, contained our notes, of most of the articles in the dental line at the exhibition, for 1853, but at the time these notes were taken most of the articles placed there by Ambler & Avery, had been temporarily removed for the purpose of re-arranging them in the case, and of course escaped our notice. As this case has excited some controversy we have taken pains to examine it, and find that it contained the following articles:—

Several instruments for stamping the edge, or sinking the plate,

so as to form small cavities. These instruments consisted of forceps, and a modification of the tinman's rollers for wiring the edges of tin ware. Ambler & Avery claim that cavities formed in this way, assist much in retaining plates by atmospheric pressure. Two partial sets of teeth intended to be sustained by atmospheric pressure, and by the aid of one clasp to each, probably they would have done better without the clasps. One complete upper set, having the plate cut away to allow the tip of the tongue to come in contact with the rugie on the gum. The edge of the plate was also cut away in front, so that the upper ends of the teeth lay against the natural gum. The piece containing two lateral incisors noticed in our article before, was made upon the same principle. There was also an entire upper set complete in three blocks, banded outside and in, and the blocks secured by a pivot at each end, soldered to the plate, and one or more screws passing through the block to a nut soldered to the plate. The object of fastening in this way, is to allow the blocks to be removed at any time for cleansing; another full upper set had a deep crescentic chamber, and a beading across the back edge of the plate. There were six other full upper pieces, no two cases alike, but each showing some peculiarity of style as with or without chambers, plain and gum fronts, &c., but all banded, and the work done in a superior manner.

There were also two entire lower pieces, one filled with tin to give it extra weight, but so made that the tin was entirely enclosed in gold; this was decidedly one of the finest pieces of workmanship in the whole Exhibition. Two entire double sets; one having the pivots for springs constructed so that they could be removed or attached in a moment at the pleasure of the wearer. This little improvement consists of a small box let into, or placed between the teeth, and made upon the principle of a common lock. The pivots on the end of the springs (on which they turn,) are made like the key to a lock, and the key hole so placed that when once in, it cannot come out without turning it to a position that it can never come into while the teeth are in the mouth.

There were several other pieces in their case, but the above were those most worthy of notice. The workmanship was all commendable and much of it of a superior character.

C. C. A.

EPIDEMIC TOOTHACHE.

Under the head of the "*Season*," the intelligent editor of the "*Recorder*," Dr. A. Hill, informs his readers that he has observed, for the last six months, a decided and "peculiar," irritability of the dental organs, and that "operations, ordinarily successful, have been attended with unusual difficulties, and in several instances signally failed;" and inquires whether the "profession in other localities have been conscious of the same peculiarities, at any time during the same period."

We would answer for ourselves, that we have noticed the same thing, and have always termed it epidemic toothache; we find in our note book, that the most TERRIBLE epidemic prevailed from the middle of February, 1854, until the 20th of March; every nerveless tooth or root seemed to be exciting more or less irritation, and nerves that had evidently been exposed for some time were attacked by inflammation; the whole mucous membrane of the mouth, as a general thing, presented signs of irritation, and *canker ulcers*, and the gums spongy and sensitive. We noted the same phenomena, beginning Nov. 27th, 1853, and lasting for two weeks; this period was remarkable for cases applying from inflamed nerves, under plugs that had been put in where there was but a thin plate of dentine between the plug and pulp. Beginning the 5th of July, 1852, the same kind of epidemic occurred, and another is prevailing at this present time, beginning June 10th. We have spoken of this matter to our dental friends and patients, on many occasions, and always proceed with cases of treatment where we attempt to destroy nerves or plug nerveless teeth, during this period, with great caution. As a general thing, the wind has been from the north-east; but frequently these epidemics set in a few days before a storm, or hot spell. It would seem reasonable, that the ordinary progress of decay would develop cases of toothache with some regularity, if it depended solely upon the pathological condition of the teeth, gums and alveolo-dental membrane, as induced by the regular progress of disease; but every one will doubtless have observed, that there will be more cases of toothache applying at some periods, in a

few days, than would apply at other times in as many weeks. As this is true, the toothache, as a general thing, depends upon the temperament of the patient, their pursuit, and a *peculiar susceptibility*, as remarked by Dr. Hill, "under the influence of certain atmospheric changes." It is constantly contended by medical writers, that when any marked influence is prevailing in the system, superinduced by cold or otherwise, that it will attack the weaker organs; such being the case, why not hail as a good fortune to have two or three *achers* in the gums at all times, to protect the more important organs from the destructive attacks of such morbid influences? We proposed a few years ago, to extract a large molar for a young lady, the daughter of an eminent medical gentleman of our city, and he objected to it, believing that it was a protection against more important organs being attacked by colds. Violent inflammation of the tonsils is, doubtless very frequently a preventive of bronchitis. J. D. W.

THE LANGUAGE OF DISTRESS.

BY A. HILL, D. D. S.

Nature has a language suited to her varied wants, and circumstances; and in every case, peculiar, and distinctive, "known and read of all men," and, we might add, of every human being, whether young or old.

Joy, bounding and boisterous, gives forth its appropriate notes in a language universally recognized and understood. Bold, and impetuous, it stirs the blood, in the most vigorous manner, and is not easily resisted or suppressed.

Sorrow, the opposite of joy, hath an expression as different as its nature. So, also, of *love—hate*—and all the intermediate shades of feeling, and experience.

And these, are all *true*—all *significant*—seldom counterfeited, or perverted.

What is the philosophy, of this language?

It was a beautiful remark, written down some years ago, by Professor Thomas E. Bond, of Baltimore, that "*sensibility*, like

a faithful sentinel, was always standing, on the outpost of danger." (We quote from memory.)

The thought was fine, and we cherished the recollection of it. It is important, and we reproduce it, as pertinent to the subject under consideration; *nature is always true*, and when she speaks, she *must* be heard, and means to be understood.

In her more *startling* cries, she never makes a mistake.

Listen to her, as she gives note of some sudden calamity.—How thrilling her language! Is it the voice of pain—or fear—or anxiety? How do men sound the alarm of *fire! fire!! fire!!!* at the hour of midnight? How terrible is the cry of *murder*? How awful, how appalling, the screech of despair! Here, Nature's voice is *one*. All are eloquent, all are understood—she seizes the reins here, and graduates her own scale, and if she sweeps the strings, the whole diapason is heard.

We say, Nature makes no mistakes, she does not confound her own language. The screech of despair, and the notes of pleasure, are never to be taken, the one for the other. They are never to be misunderstood, or misrepresented. Every human being understands them, and immediately responds to their influence.

Here then is the truth, here stands a great *fact*, and what is its philosophy?

Pain, is always the language of distress and danger; and the danger, must always be in proportion, to the intensity of pain. For, if it be true, that "*sensibility* is the sentinel, on the outpost of danger," whose business it is to sound an alarm as danger approaches, we may consistently presume, that the sharpness and severity of the notes of alarm, will be proportionate to the danger, or peril which threatens. For no human being, left to the pure instincts of his own nature, could, under the influence of a lively apprehension of his immediate danger, change the character, or even disguise the meaning of his expressions. A simple *groan*, is always significant. Much more, a *scream—screech—or yell*. The sharp, quick, and emphatic notes which break from the lips in the moment of distress, are all calculated, and understood—they are graduated, and adjusted by a provident, and intelligent nature, to the occasion that shall call them forth.

And we say, they have a meaning, and a profound philosophy, which underlies the whole. What is that meaning—that philosophy?

We shall attempt briefly to foreshadow it in the short space, which remains for this article.

When nature, utters her voice, other things being equal, the alarm is proportioned to the danger. The severest pain indicates the severest necessity for immediate and prompt attention. It is nature's own call, for assistance. Otherwise nature is found to raise a false alarm, and the law of pain, is misunderstood.

Fire, being very dangerous, nature cries against its direct contact, with a voice of terrible agony. Here, she is true, and so of a thousand other things.

Odontalgia, or tooth ache, is a terrible pain, and under certain circumstances, perhaps it is the most terrible pain, which a human being, can endure.

And what is the conclusion, in reference to it? Why are the teeth, those hard dense structures, armed with such exquisite sensibility, and allowed a voice, of such terrible, and startling agony?

The conclusion seems irresistible. They are vastly important—the danger is appalling—the demand for assistance immediate and imperative—and whosoever will not heed the call, must suffer the consequence.

And herein is *sin*, here is an insult, and abuse, of one of the most beneficent provisions of nature. Here is the most perverse resistance of God's own voice, and this is sin.

The prevalent notion, that *pride* alone prompts to the care of the teeth, and to those needful and sometimes necessarily painful dental operations, to which so many submit, has been too long suffered to go unrebuked.

Duty, stern and inexorable, summoned by nature's loudest and sharpest call, requires the promptest, and best attention to the dental organs.

Comparatively few individuals, are capable of appreciating the important and extensive relationship between the teeth and that wonderful economy with which they stand connected. They are related to a series of operations in such a way, that any material derangement of them, cannot fail to effect the

whole. Indeed a change here, works a corresponding change throughout the system, just as the displacement of a figure in mathematics, must necessarily give a different result. With respect to the process of digestion, they are the first of the series of operations concerned in it. And what is wrong on the start of any process, must be corrected precisely at that point, or not at all.

Now, the law is clear, that at the point of departure, sensibility, gives the alarm—pain, is the voice of warning, and if promptly heeded, it is a seasonable and timely admonition, and may be considered salutary. But neglect it, and the cry rings through the whole organization in a voice of terrible agony, and finds an echo in every organ of the series. But if the matter of preserving the teeth is to be regarded as of little or no consequence, how is it that nature has put such loud and extravagant notes to such a key?

From the Dental News Letter.

WHAT WAS IT?

MESSERS. EDITOR,—Recently I had a patient whom I was treating for diseased gums. The lady called my attention particularly, when she first visited my office, to the condition of the gum about the first right superior molar. The mucous membrane had been destroyed over a surface the size of a three cent piece, and the gum presented a highly inflamed and somewhat ulcerated appearance. I treated her gums and prescribed for her as I thought the case demanded.

After a few days she returned with her gums much improved, except the sore spot above noticed, to which she again called my attention as the only point then troubling her. Near the centre of this spot I noticed a small, bright shining grain, such as appears in granular inflammation. Not being wholly satisfied with its appearance, I ventured to touch it with my check-holder, and found it to be movable, and of a bony structure. After separating the gum a little from it, I took hold with a small pair of pointed forceps and removed it. It was about half the size of a

wheat kernel, and round and smooth as a shot—taken from the buccal surface of the gum between the second bicuspid and the first molar. It was unlike the structure of the jaw bone, very dense and altogether like the firmest dentine. It was not the last remains of a root, for no teeth had been extracted from that side of the jaw. Where was it formed? How came it there? What was it?

Yours, &c.

L. C. INGERSOLL, *Dentist, Ohio City.*

We have frequently taken the same kind of granules of enamel from the gums, and a short time since had one similar to the one described above presented to us by a member of the profession. These granules are doubtless similar formations to those, that when a little larger, are regarded as supernumerary teeth as they are generally found, too, on the buccal surfaces of the gums opposite the spaces between the molar teeth. We have also seen two or three such round granules shed from the gum instead of a front incisor tooth.

J. D. W.

From the Boston Medical and Surgical Journal.

POPULAR TREATMENT OF CHOLERA.

MESSRS EDITORS,—I observed in one of your leaders of last week that you advised letting medicine alone, if attacked with cholera, till it is prescribed by a competent medical man.

Suppose our profession should arouse and make a combined movement to help the community to an accurate discrimination of the disease in its early stage. Why don't our editors instruct the public? The distinction between Asiatic cholera and common domestic diarrhea is palpable and easy, and every man can carry that distinction in his memory. Cannot an uneducated man tell certainly if he has an evacuation which is *copious, watery, colorless, painless* and *indorous*? Any man of ordinary talents can ascertain, in two minutes, that something has happened to him which he never experienced before. I said *painless*. It is this quality of the evacuation which leads men to the amazing

apathy so common, and permits them to let hours, even days elapse before the physician is at his post.

As this Asiatic destroyer has now become Americanized, our people *must* be able to make an early discrimination, and our *profession must* learn how to prevent the fatal collapse. Why will not the editors instruct their readers that they can better afford to lose a pint of common red blood than a pint of this colorless blood of cholera. How hopeless is the state of the patient from whom gallons of liquid, colorless nutriment have escaped; and how forlorn and wretched the medical man called at that late hour!

But I sat down determined not to plague you with a long article. If the editors, and especially my medical brethern, could feel as I do on the subject of *incipient cholera*, and lend us their facts and thoughts, through the medical journals, in short condensed paragraphs, my hopes would be answered.

I have no design to traverse the caution just given; but if you have a little more space and you approve, Messrs. Editors, let me add that having been watching every movement since this disease first broke out near Calcutta, in 1817, I have seen no scheme so rational as that fixed on by the Army Board of Surgeons of Bengal, and, according to reports, more successful when taken in the early stage. It consisted of heroic doses of calomel, combined with opium sufficient to anchor the calomel and retain it in the bowels. The formula was the combination of 15 grains of calomel and 4 grains of opium. Possibly it was 5 grains of opium. Fifteen to twenty grains of calomel every four hours, with opium only sufficient to control the bowels, must have a powerful and rapid effect in changing the secretions. But if every business man would keep a powder of the above description in his pocket to swallow, if occasion required, it would scarcely do harm, and would greatly aid the efforts of the physician employed.

M. L. NORTH.

Saratoga Springs, July 6th, 1854.

Dr. P. F. Eve, Professor of Surgery, in the Nashville University, in an address, read before the Tennessee Medical Society, cited the following cases of operations for cleft-palate.

STAPHYLOGRAPHY.

"Within twelve months I have operated three times for congenital *cleft-palate*; twice on the same patient, both operations unsuccessful, but in the second case the attempt did well.

The two failures in the operation occurred in a young lady, about twenty years of age, residing in a neighboring county; who is of fine personal appearance, of commanding figure, and has an excellent constitution. The fissure is the widest I have ever seen, extending the full length through the palatine processes of the superior maxillaries, the palate bones and the uvula; it exists too in median line. The case was undertaken with no very flattering prospects of success; and after the sutures were applied, free incisions were made to relieve the tension in the soft parts, yet no union took place. In re-applying the stitches about three weeks after the first attempt, the edges of the fissure were freshened by muriatic acid, so as to avoid farther loss of substance, where the deficiency was already so great. In each instance, the soft parts were brought accurately together and promised for a time success; but the traction seemed so great that the sutures ulcerated out before permanent adhesion took place.

The successful operation was performed before the class on the 23d of last November, on a young gentleman eighteen years old. This case was favorable for staphylorraphy, for though the cleft was complete in the uvula and the palate bones, it did not extend to the excisor teeth in the superior maxillary. This fissure has been well closed, leaving a small longitudinal slit in the bony structure of the roof of the mouth, which it is proposed to have closed by an obturator, and it would have been done before this, but the patient has been called South on pressing business. The new uvula looks quite natural, and the line of reunion of the divided parts is so firm and blended with the normal structure of the surrounding tissues as to be barely perceptible. It is altogether a very satisfactory operation.

The method selected was that of M. Vidal, described in his fourth volume of *Pathologic Externe*, and the knots were made with small shots having holes drilled through them."

CORRESPONDENCE.

THE AMBLER MEDAL.

DR. HILL. *Dear Sir*—In the letter from Dr. E. Parmly, published in your May number, I find the following assertion:—"Dr. C. C. Allen also informed Dr. Trenor and myself that D. C. Ambler told him that he paid for the medal." Now, with all due deference to Dr. Parmly's veracity, I must affirm that I never told either Dr. Trenor or himself any such thing. What I did tell them was, that Dr. Ambler admitted that he paid for the gold put into the medal, that was awarded to him by the American Institute. The plain inference from what Dr. Parmly has written about this medal in the Recorder, is that D. C. Ambler never received the highest award from the American Institute, for the best mineral teeth, but, on the contrary, bought and paid for one, and that C. C. Allen informed Drs. Trenor and Parmly that Ambler admitted the fact. The following is an extract from the Report of the Judges at the Sixth Annual Fair of the American Institute, October, 1853:—

"No. 244.—DR. AMBLER'S SILICIOUS METALLIC INCORRUPTIBLE TEETH."

"We are of opinion that No. 244 is the best specimen of Dentistry, combining the manufacture of the teeth, their strength, durability and varied colors, and also their setting and adaptation to use and ornament, well deserving a Gold Medal."

Signed, **CYRUS PERKINS,**
FRANCIS W. WALSH,

I certify that the above is a true copy of the report on file.

Signed, **JOHN W. CHAMBERS,**
Clerk American Institute.
New-York, Nov. 26, 1853.

Mr. Chambers also informed me that, for several years, after the American Institute went into operation, it was customary to allow exhibitors, to whom the highest award had been made

(but no others) the privilege of furnishing gold to be struck in the die used by the Institute for coining the silver medal, which was the highest award then made by the Institute. Dr. Ambler admitted to me, as he had done before to Dr. Parmly, that in accordance with this custom he did furnish gold, and obtained a gold medal instead of a silver one, by the consent of the managers of the Institute. Mr. Chambers also told me that a similar practice prevails in many, if not all, the Agricultural Fairs in this country, and that when silver cups are awarded the beneficiaries are allowed to add an extra amount of silver to obtain a larger and more showy cup at their own expense. I do not approve of this system of making awards, and am glad to learn that it has been discontinued several years since by the American Institute; but this is a very different thing from fraudulently obtaining a medal, as is implied in Dr. Parmly's article, and I have felt called upon in justice to Dr. Ambler, as well as to myself, to supply this omission of truth by Dr. Parmly.

In another part of Dr. Parmly's letter is the following:—"J. G. Ambler did not give to any one of the Committee, that I am aware of, the slightest intimation that any person but himself and partner, Dr. Avery, had any thing to do in making or producing any part or portion of the specimens exhibited."

As it was my fortune to be associated with Dr. Parmly as one of the jurors at the Crystal Palace, I will here state that I distinctly heard J. G. Ambler say, in the presence of Drs. Trenor and Parmly, who were both nearer to him than I was at the time, "Gentlemen, we claim nothing for the teeth." This was at the meeting to which the exhibitors had been notified to appear and point out to the jurors every thing in their cases, for which they asked, expected, or claimed any award. Now, I would ask, what difference does it make who made the teeth set on Ambler & Avery's work so long as they asked no award for them? And that they did not, any one of the Committee can assure himself by referring to his own notes, taken down while Dr. Ambler was present and explaining what they did expect an award for. I did not suppose that any one of the Committee thought the teeth were made by Ambler & Avery at the time they examined them. While discussing the merits of their work, in committee, I do not recollect that one word was said about

any thing but the workmanship of mounting, and the peculiarities and improvements claimed and explained by Ambler. In the minority report an "Honorable Mention" was recommended to Ambler & Avery for "work," and the peculiarities were pointed out as explained by Ambler; and in Prof. Buckingham's first report, a Bronze Medal was recommended to them, the same as to Reynolds & Kingsley, for "Dentistry," and the award, which was finally made to them was for "Specimens of Mechanical Dentistry," so that neither in the recommendations nor in the award was any special mention made of the teeth, and when we take into consideration the fact that not one mechanical dentist in ten makes his own teeth, I think it will be conceded by all that no deception has been practiced upon the jury or commissioners.

Very truly your friend,

CHAS. C. ALLEN.

EDITOR, RECORDER,

In your July number is the following inquiry, from a correspondent. "Does the continuous gum material, manufactured by Dr. Allen, possess advantages over that manufactured by Miller & Stearns?" and as there immediately follows, a confession of inability to reply satisfactorily to the question, I propose, by your permission, to state for the benefit of similar inquirers, some of the advantages claimed for the material used in Dr. Allen's practical work.

1st. The body has all the solidity, toughness and strength, when fused, possessed by any tooth material now in use, and is not dissimilar, in texture and color, to Jones, White & Co's., or Crofoot's best.

2nd. It is ground to an impalpable fineness and is thereby more easily worked into all the interstices of the piece, which, with its toughness, while moist, renders it susceptible of the most delicate carving.

3rd. When fused it will remain as carved, and with it teeth may be lengthened and made broader for a particular articulation, with the same facility and certainty as upon a biscuited block.

4th. Should an accident require a second, third, or even a fourth heating, in repairing, it will not blister, flux or crack, but on the contrary, settles firmer and closer to the teeth and plate.
 5th. The gum color is laid on thin, and fuses with less heat, than the body, and being only intended for color, is not injured by extra bakings.
 Inasmuch as it is requisite, to insure success for the platina work, that the materials employed shall be such as to offer the utmost facilities for working, the above advantages in favor of Dr. John Allen's Composition, are offered for the consideration of those who propose introducing this style of work into their practice.
 Very Respectfully,
 O. S. P. ———, 30 Bond Street,

MAHALON LOOMIS

EDITOR, RECORDER,

The modest assertion of Mahalon Loomis, relative to his "improved sets of Artificial teeth," in your last number, requires a better endorsement, in this age of improvement, for us to believe "that no person who wears artificial teeth will ever wear any others;" and that "no dentist will ever go back to other methods after he has once made use of this," than the editorial you gave it. It is not my intention to quarrel with the inventor of this new model for any assertion he has yet made public, but find it difficult for experienced block makers to understand that a silicious compound can be cased and baked, with due allowance for shrinkage, so as to fit an upper jaw and obtain a good suction. But, admitting this to be easily done, would not other difficulties arise, in suiting a patient, such as clumsy feeling in the roof, (especially to those who can scarcely make bearable a close fitting metal plate,) difficulty in articulation, natural expression, strength, &c.

If this work "does succeed," let us have something substantial in New York at once as a *test piece*, and since the inventor is secured by patent, he can have no hesitancy in giving to the profession, in full, the principles on which it is based.

If it is superior to *plating work*, for dentist and patient, the earlier it is proved the better for all concerned, and if the inventor cannot visit New York in person, there are no doubt those who will act as his agent, and your correspondent would respectfully suggest Sutton & Raynor, they being centrally located, and already skilled in block and other styles of work.

It is easy enough to make almost any style of work, now in use, "*look well out of the mouth*," but for practical use we want, and MUST HAVE the most substantial and natural appearing.

If this work is "*very strong*," we wish to know if it is equally so, as blocks mounted on gold, or the double rimmed platina work put up by Dr. Allen? In short we wish to try it, and then if "no objection can prevail against it," we shall think that Dr. Loomis has attained the ultimatum in artificial dentistry.

Yours, &c.

ANXIOUS INQUIRER.

SUBSCRIBERS TO DENTAL PERIODICALS

"It would be well enough for some who take and read Dental Journals for three or four years without paying anything to receive them, but for such work must necessarily be promptly paid." **31 WASHINGTON PLACE,**
New-York, July 31st, 1854.

DR. HILL,

Dear Sir,—It was my intention (as stated in the Recorder for April) to have answered E. Parfily's malicious attack upon me, published in the Dental News Letter, and had prepared said answer; but inasmuch as Dr. P. has republished some portion of that libellous article in your Journal, of May last, declaring his ability to prove what he asserts, saying, "J. G. Ambler having commenced a law-suit against me, I am happy in saying we shall have a much better opportunity of establishing the truth of our respective statements in a Court of Justice than we possibly can have in the Dental Recorder; and where I pledge you, beforehand, to substantiate, in strictest truth, every word of the 'tissue of falsehood and misrepresentation.'"

With a view of gratifying Dr. P. with such an opportunity, untrammelled by a controversy in public print, and by the advice of friends, I have very reluctantly concluded to defer my answer until he makes good his assertion above referred to, or at least

has had afforded him an opportunity for so doing, until which time your readers will suspend their judgment as to the truth and justice of the Doctor's attack upon me.

Yours truly,

J. G. AMBLER.

We could wish that some of the *Recorder* subscribers would appreciate the force of the following remarks by Dr. Taylor, and give us the benefit accordingly. By promptly paying up subscriptions an impetus is given to the prosperity of a Journal which at once reverts to the benefit of subscribers, and every one concerned would be much better satisfied with the result.

SUBSCRIBERS TO DENTAL PERIODICALS.

“ It would be well enough for some who take and read Dental Journals for three or four years, without paying anything, to recollect that the list of subscribers for such works must necessarily be small, and hence the necessity for prompt pay. They should also recollect, that if they take the work from the post office, they are as really subscribers, as if they had written to the publishers and ordered the work. Some appear to receive such works from the publishers when sent them, as a mere complimentary affair. When the fact is, they are supposed to be *able, willing, and honorable* enough to pay for the same; and thus give their aid to advance the profession they practice. Such should also recollect that their own interest is thus subserved, for as the profession is advanced, so will be their standing and influence in society, and also remuneration for their services. The fact is, every man in the profession should rejoice to co-operate in this work.”

New-York Dental Recorder;

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

Vol. VIII.] SEPTEMBER, 1854. [No. 9.

From the American Journal of Dental Science.

DISEASES OF THE DENTAL PULP AND THEIR TREATMENT.

A DISSERTATION, PREPARED FOR AND READ BEFORE THE ASSOCIATED ALUMNI OF AMERICAN DENTAL COLLEGES, AT THE BALTIMORE COLLEGE, MARCH 18, 1854.

BY CHAPIN A. HARRIS, M. D., D. D. S.

(CONTINUED.*)

INFLAMMATION.—The pulp of a tooth, when healthy, has a grayish white appearance, and its capillaries are invisible to the naked eye, but when it becomes the seat of *acute* or *active* inflammation, they may be distinctly seen—the organ having assumed a bright red color. Inflammation having established itself, soon extends to every part of the pulp, and even to the alveolo-dental periosteum. When permitted to run its course uninterruptedly, it usually terminates in suppuration in from three to eight or ten days.

The unyielding nature of the walls of the cavity in which it is, on all sides, enclosed, renders expansion of the pulp impossible, and as its capillaries become distended with blood, they press on the nervous filaments which are everywhere distributed upon it, causing at first constant *gnawing*, but afterwards, as the distension of the vessels increases, severe, and sometimes almost insupportable, *deep-seated, throbbing* pain.

Inflammation may attack the pulps of sound teeth as well as

* A digest of the preceding portion of this excellent essay, was given in the June number.

those that are affected with caries, but it occurs more frequently in the latter than in the former, and it is oftener met with before than after the pulp has become actually exposed. The severity of it, however, is determined by the condition of the tooth, the state of the general health and the causes concerned in its production. The pulp, when in an irritable condition, is more liable to become the seat of acute inflammation, than when in a perfectly healthy state, and the occurrence of suppuration is soon followed by alveolar abscess, unless an opening is made immediately through the crown, neck, or root of the tooth for the escape of the matter.

The effusion of lymph which takes place during the inflammatory stage, and which, under other circumstances, and when the inflammation is less severe, is made to play an important part in the reparation of the injury, compresses the pulp into still narrower limits as it accumulates in quantity, and thus becomes an additional source of irritation, adding fuel to the flame already lighted up.

Inflammation of the pulp may be caused by a blow on the tooth; by impressions of heat and cold conveyed to it through the conducting medium either of the enamel and dentine, or a metallic filling, or by the pressure of a filling, or the direct contact of external irritating agents, such as disorganized portions of the tooth, particles of alimentary substances, acrid humors, &c. But as I have stated in another place, *inflammation* of the dental pulp "is not always a necessary consequence of impressions of heat and cold;" pain may be produced by them when it does not exist, but in this case, it usually subsides soon after the removal of the irritant. The pulp of a tooth may be exposed for months, and subjected several times a day to the actual contact of foreign bodies, without becoming the seat of acute inflammation. The irritation, and increased vascular action thus occasioned, are, no doubt, removed by the effusion of lymph to which they give rise, and the pulp, after it has become exposed, having room to expand as its vessels become distended, does not suffer irritation from the pressure to which it would otherwise be subjected.

When suppuration takes place, the pain very nearly ceases, but the tooth, for a time, remains sore to the touch, and its ap-

pearance is changed. It has no longer the peculiar animated translucency of a living tooth, but has assumed an opaque, muddy or brownish aspect. With the disorganization of the pulp the entire crown and inner walls of the root lose their vitality; still, if the alveolo-dental periosteum has not become seriously involved in the disease, the vascular and nervous supply furnished the exterior of the root, is often sufficient to prevent the tooth from exerting a manifestly obnoxious influence upon the surrounding and more highly vitalized parts. The cementum being more analogous in structure to true osseous tissue than dentine, now plays an important part in the animal economy. It being more liberally supplied with the nutritive juices and vitality, and not being sensibly affected by the death of the other parts of the organ, it keeps up the living relationship of the tooth with the alveolo-dental periosteum, at least sufficiently to prevent it from acting perceptibly as a morbid irritant.

Inflammation of the pulp of a tooth, besides the local pain with which it is attended, often gives rise to a train of constitutional morbid phenomena, usually of a mild, but sometimes of an aggravated and even threatening character. Among these are, *head-ache, constipation of the bowels, furred tongue, dryness of the skin, quick, full, and hard pulse, ear-ache, ophthalmia, disease of the maxillary sinus, &c.* The following cases, taken from many of a similar character, which have fallen under my immediate observation, will serve to convey some idea of the effects liable to result from this cause:—

Mr. H——, a resident of Baltimore, of a sanguino-nervous temperament, about thirty-five years of age, had a left bicuspid of the upper jaw filled in May, 1850. The cavity in the tooth, as I afterwards ascertained from an examination, extended nearly to the lining membrane. The only immediate inconvenience experienced from the operation, as I was informed, was a slight momentary pain whenever hot or cold fluids were taken into the mouth. The tooth remained in this state for about two months, but at the expiration of this time, it began to ache. The pain, however, being slight, was attributed to a cold contracted a short time before, but in a few days it increased and soon became so severe as to be almost insupportable, depriving him of sleep at

night. The pulp had now become the seat of active inflammation, which rapidly extended to the socket and gum, and in a short time to the alveoli of three or four of the neighboring teeth, and to the maxillary sinus. Congestion of the brain, with all its attendant phenomena, such as fever, full, hard and quick pulse, intolerance of light, and slight delirium supervened.

The most active treatment was promptly instituted and energetically pursued, consisting of copious blood-letting from the arm, saline purgatives in large doses, blisters to the back of the neck, leeches to the gums, and the extraction of the tooth which had given rise to the disturbance; but, notwithstanding, the local inflammation terminated in suppuration and necrosis of the sockets of five teeth, and the floor of the maxillary sinus. The constitutional symptoms, in the meantime, disappeared, and at the expiration of about eight weeks, the dead bone had so far separated from the living, that I was enabled, without difficulty, to remove it.

Now, the whole train of morbid phenomena in this case, originated in irritation produced by impressions of heat and cold, conveyed to the pulp, through the medium of a filling in a tooth, and a thin layer of dentine. But in a person of less nervous excitability, these impressions would not have given rise to any permanent local disturbance, and they would not have been felt at all, if a non-conducting substance had been placed in the bottom of the cavity previously to the introduction of the filling. The prompt removal of the filling would have prevented the painful consequences that supervened, but when I first saw the patient, suppuration had commenced, and hence the removal of the tooth failed to afford relief.

In December, 1849, Mr. M——, about thirty years of age, of a sanguino-bilious temperament, sedentary habits, contracted a severe cold. The next day the left cuspid tooth in the upper jaw became the seat of intense throbbing pain. This, in common with all his other teeth, had sustained considerable loss of substance from mechanical abrasion, owing to the manner in which the teeth of the upper and lower jaws came together, but it had not suffered injury from any other cause. The inflammation which had seized upon the pulp soon extended to the alveolo-dental periosteum and gums. High fever, constipation of the

bowels, and inflammation of the conjunctival membrane of the eye of the affected side rapidly supervened. His sufferings, for several days, were intense.

The patient had been troubled occasionally, for several years previous to this attack, with dyspepsia, and at such times he experienced pain in several of his teeth whenever he took hot or cold fluids into his mouth, or inhaled cold air, but as it subsided immediately, it excited no apprehension, especially as the teeth in which these impressions were felt were free from caries. I saw the patient for the first time the evening of the third day after the attack. Suppuration of the pulp had now taken place; the tooth was slightly pushed from its socket, and the gum around it was swollen, indicating that alveolar abscess was in progress of formation.

The most active means had been used to arrest the inflammation, and put a stop to the threatening constitutional symptoms, but as they were not resorted to until suppuration of the pulp was about taking place, they afforded but little relief. To give egress to the confined pus seemed now to constitute the first and most important curative indication, and for this purpose a hole was drilled through the worn end of the tooth to the pulp cavity.—The escape of matter that followed the withdrawal of the instrument gave immediate relief. The inflammation of the surrounding parts, and of the eye, soon disappeared, and in a week the gum had assumed a perfectly healthy appearance.

In this case, nature, from some cause which cannot be easily explained, had failed to make that provision against the exposure of the pulp, which she usually does under similar circumstances, consisting, as has already been intimated, in the gradual conversion of this organ, as the abrasion approaches the central cavity, into *osteo-dentine*.

The subject of the third case was a young lady of a sanguinous temperament, about nineteen years of age. In the summer of 1852, a small filling was put in the left approximal surface of a lateral incisor, after having been first separated from the adjoining central. Slight, transient pain was experienced for a few days after the operation, whenever she took hot or cold fluids into her mouth, but this only occasioned momentary inconvenience, the unpleasant sensation ceasing almost immediately.

In the fall of 1853, after a slight attack of congestive fever, during convalescence, and after her recovery, the pulp of the tooth was so exceedingly irritable that the inhalation, even of cold air, caused severe pain. In a few weeks inflammation appeared, and although leeches were promptly applied to the gum, and saline purgatives prescribed, its intensity was not abated in the least; it soon extended to the alveolus. The local disturbance, in this instance, not only caused the disorganization of the pulp, but it was also attended by an attack of inflammatory fever.

Mr. Billisurio, dentist, of Sydney, Australia, relates, in the American Journal of Dental Science, the case of a man, 25 years of age, who, after a "severe wetting" while on his passage from England to that colony, when off the Cape, had the pulps of his lower incisors, cuspids, and bicuspid attacked by inflammation, which terminated in each tooth in suppuration and alveolar abscess.

(Continued next month.)

ON THE USE OF WIDE PLATES FOR INSERTING ARTIFICIAL TEETH.

FROM AN UNPUBLISHED WORK, BY J. W. CRANE, M. D.

I have never heard any argument in favor of covering the whole surface of the palatine portion of the mouth, except that it *produces greater adhesion*.

I have never had occasion to use a wide plate, for that or for any other purpose, except in malformation where the palatine plate of bone was wanting, and then it was used for the purpose of correcting the articulation in speaking. Not long after these plates came into use, I had occasion to reduce their width to make them comfortable, or throw them aside and make others of less width. This argument was sufficient to convince me that the new plan was inferior to the one I had long since adopted.

I know of no better plan to test the utility of any so-called improvement, than to weigh the arguments in favor of and against it. We have already mentioned the only argument

that we know of, in favor of the wide plate, viz., to produce greater adhesion.

In the first place, does it attain the desired object *more* effectually than the narrow plates, made with a chamber under the linings of the teeth?

Secondly.—Which is the more permanent in its action?

Thirdly.—If the narrow plate injures the sense of taste, will not the wide one destroy it?

1st.—I have never seen a wide plate adhere to the gum as firmly as the narrow one with a chamber under the linings, which I have used since the year 1836. Some who are not satisfied with this unnecessary incumbrance, appear to use the wide plate for the purpose of distorting the anatomical form of the mouth, by a chamber nearly in the centre of the plate; others bend the posterior edge of the wide plate to form a partial chamber of nearly its whole surface.

2nd.—The wide plate must of necessity be but temporary in that which it is designed to accomplish. No one has ever seen a mouth after the teeth were extracted, that did not change by absorption, and it will continue to do so for years after the first set is inserted, especially in the young subject; they change more or less, after the teeth have been extracted ten years.—Where is this change? The absorption takes place on the alveolæ, and not on the ossa palati, where the wide plate must rest. This bone never absorbs, except when diseased, and must, therefore, be the only resting place of the wide plate, when the alveolar ridge has retired.

3rd.—The taste is impaired in some cases by a plate one-fourth of an inch in width, when it is carried back to the first molar tooth. There are persons who have lost the sense of taste without any artificial means; by some physical derangement of the organs of taste. There are others who have partially lost this sense, and care but little on the subject, so long as their food keeps the body and soul united; but there are not a few, whose taste has been destroyed (if we can rely upon their own testimony) by the wide plate. We learn from physiology that the sense of taste is seated chiefly in the nervous papillæ of the tongue which are excited into action by contact with the palatine portion of the mouth; we must, therefore, conclude that the

sense of taste is undoubtedly combined with that of touch, and if the latter is destroyed by the interposition of a foreign substance, how much more is the former affected by the same unnatural cause.

HEARING RESTORED BY ARTIFICIAL TEETH.

FROM THE SAME.

I am confident that some readers will feel disposed to ridicule and disbelieve in any such means of restoring hearing, but they cannot object to a statement of facts which have occurred of late, and for which I have abundant living testimony, apart from the patient herself, who is an acquaintance of twenty years standing. Miss T—— has been partially deaf, ever since I have known her, but how early the trouble commenced, or what was its cause, I have no knowledge. She began to lose her teeth early, when Dentistry was in its infancy, and those that were not destroyed by caries, became loose, until all had disappeared. Her gums were soft and spongy before the teeth were removed, but healed readily after that operation.

She then had a full set of artificial teeth inserted, (I know not whether the gums were in the right condition to receive them,) which gave her constant pain and trouble for three years, and occasioned greater absorption on the lower jaw than I ever witnessed in any living being.

Her dentist persuaded her that all this was to be expected, but it would all come right in time, and induced her to persevere; the absorption continued till the under jaw was but little more than half an inch in depth. The teeth he made for her were much too short, the under plate was too narrow by one half, the upper plate reached nearly to the palate, and covered the entire palatine portion of her mouth, and in addition to this, a pair of spiral springs were attached.

During the three years martyrdom, the masseter and buccinator muscles became contracted, and her face consequently much shortened.

In this condition she applied to me for relief, and a new set of teeth.

The usual means were employed for restoring the symmetry of the face, and the teeth were necessarily made much longer than those she had previously worn. The first few days after they were inserted, she complained of pain in the muscles of the jaw, and on examination I found them to be inflamed and considerably enlarged; the parotid gland was also swollen and painful; the gums being but slightly inflamed, I concluded that the stretching of the muscles was the cause of the inflammation and enlargement of the parts, an application of the Tinct. of Arnica soon restored them to a healthy state.

In about two weeks the lady informed me that her *hearing* had improved—a result, as unexpected as it was agreeable—she could hear better than she had done for years, and her friends had also discovered it to be the case. Of course, this gave her much joy, and I truly hope and trust, that it will prove to be a lasting comfort and blessing.

For the Recorder.

HEMORRHAGE OF THE GUMS AFTER EXTRACTION.

BY WILLIAM C. BENNETT, NEW-YORK.

The very fact, that hemorrhage of the gums has, in some instances, proved fatal, will justify any one in searching out and recommending to the profession a more infallible remedy than has ever yet been presented.

Doctor Harris, in his Principles and Practice of Dental Surgery, in speaking upon this subject, says, that “excessive hemorrhage of the gums does not depend upon the manner in which the tooth is extracted, but rather upon a hemorrhagic diathesis of the body.”

Hence we may be justified in coming to the conclusion that every one in practice is liable to meet with trouble from this source; and I presume that there is not a member of the profession who has been in practice for any great length of time

that has not experienced some inconvenience, and often wished for a more infallible remedy.

Few, perhaps, if any, who will see these remarks, have ever had a case of hemorrhage to prove fatal, and yet, they and their patients may have been annoyed for hours, and a sure guarantee against a repetition of the same would well repay for weeks of research for an infallible styptic.

The means heretofore resorted to, to prevent and stop hemorrhage of the gums, have been:—1st, The compress; which I think is objectionable, from the fact, that if the pledgets are removed before suppuration takes place, there is danger of opening the blood vessels again.

Again:—Styptics, in the form of astringents, have very generally been recommended and used.

Doctor Harris, in the work referred to above, recommends Tinct. of Nut Gall as the best styptic, but even that, combined with the compress has failed. Others recommend "Tannic Acid," "Tinct. of Myrrh," "Tinct. of Capsicum," "Alum," "Sul. Cupri," "Nitrate of Silver," while others still use the cautery.

Now, I believe that the error consists in presuming that the astringent properties of the article used act directly upon, and close the mouths of the blood vessels themselves. I think it can be demonstrated that they have *no* influence any further than they act as a coagulate.

In short, I am not satisfied that the astringent is at all required, for if it is the astringency that acts as the styptic, then certainly the most powerful astringents would make the best styptics, which is not the case.

What the precise chemical action is, between the agent used and the parts affected, is probably difficult to say.

It is not, therefore, my object in writing this article to attempt to explain how the effect is produced, but I wish to recommend to the notice of the profession, an article which I have used for several years, and in some **EXTREME** cases; and I have never known it to fail in stopping the most excessive hemorrhage in a very few moments.

One thing, however, is very evident, and that is, if you can form a thin elastic film of blood over the ruptured parts, in a few hours that film will become organized matter, and will very

soon become living flesh; while, on the other hand, if the clot is thick, dry, and hard, it is easily broken, and then the hemorrhage is kept up.

But I fear that I am extending these remarks to too great a length. I will, therefore, in a very few words, introduce the article, and then close. Had I not already extended these remarks beyond my intended limits, I should like to introduce one or two cases, but I forbear.

The article referred to, is the powdered root of the "Trilium Perpurium," commonly called "Beth Root." It is found abundantly in the Catskill and Alleghany Mountains.

It is a very slight astringent, and also a tonic. Its properties are "Valatile Oil, a little gum, resin, extractive, tannin, and much feculum."

The dry powder is put in the socket, and, if need be, secured by a little lint.

I hope that your readers will try this Beth Root, and if they have any thing that is preferable, give it to the profession as freely as this is given.

New York, Sept. 6th, 1854.

From the American Journal of Dental Science.

CHLOROFORM.

LETTER FROM JAMES HARRISON, DENTIST, JAMESTOWN.

Enclosed, I send you my method of counteracting unfavorable impressions made by chloroform, or the means I use when a person is sinking under the effect of chloroform. I have read a case in the American Journal of Dental Science, page 272, vol. iv. The brain, the centre of the nervous system, should be immediately aroused to action, and the valves of the heart put in motion again. The remedy is this: sicken or nauseate the stomach, mechanically, as follows:—Take a light whole goose-quill, run the feather end down the throat of your patient to the larynx, and give the quill a rotary motion; or if there is nothing more convenient, use your finger, run it down the throat, move

it round and round the side of the throat, touching or exciting the larynx, and mostly the epiglottis. The quill would be preferable if the jaws are locked, in which case run the feather end of the quill between the teeth or back of them; reaction will immediately take place.

I would as soon think of restoring a person, sinking under the effect of chloroform, by tickling the sole of the foot, as to depend on artificial respiration alone. I am confident that this remedy will be of great use to suffering humanity. May it be fairly tested, and endorsed by all who find it to be of use.

N.B.—I never let the pulse fall below 45 to the minute—consider the patient safe, pulse at 50.

[An operation like this was recommended by Ricord, who believed death to take place in consequence of a closure of the glottis. He thrust his hand down the throat, and lifted the epiglottis, which he always found pressed down upon the upper opening of the larynx. This treatment was highly approved and very generally adopted after its first introduction.—Eds.]

For the Dental Recorder.

MEDICAL AND MECHANICAL DENTISTRY.

BY A. C. CASTLE, M. D.

One of the greatest difficulties against which the Art of Dentistry—as the profession is now termed—has to contend, is the non-medical education of its members, especially in the theoretical, pathological, and physiological peculiarities of the dental organs, and their relations with the whole nervous system, the animal economy, and their sympathetic and symptomatic phenomena with the several peculiar systems comprising the one harmonious whole. [Why this is so, may be readily and easily accounted for; neither learning nor knowledge are valued in the United States, notwithstanding all the boasting, all the statistics, and all the appropriation for public schools. All these combined, may turn out the most learned scholars; yet, without quackery and vulgarly speaking, without “gas,” without “blow-

ing," these scholars would die of starvation, unknown and uncared for, by what is termed a discerning public. Hence, what is the use of men, incapable of professional dignity, learning a profession properly, when, knowing it imperfectly, secures them boldness and that lack of professional dignity, without which, they can and will beg, "drum," and do any thing to get "a job?" While the mere mechanical manipulation will secure them a piece of bread, and often times "a good trade." What care 75 per cent. of the "profession," *par excellence*, who cannot spell three words, consecutively, of their own language correctly! Yet, such is the arrogance, the presumption of this portion of the dental profession, and the *ignorance*, too, that they will coolly tell the best educated physicians and medically educated dentist, that a medical education is all "fudge;" that *they* "can get along without the knowledge of medicine quite as well as the best educated dentist." This is all true; because an educated and an "enlightened" public in this hemisphere loves to be quacked much better than to be learnedly, and correctly, and honestly dealt with. The medical man starves—the quack makes his millions. The medical dentist makes a bit of bread—the dental quack does his "work" *better than all the world*; he laughs, gets rich, and leaves learned humility in the dust far behind. It is humiliating—that ignorance is triumphant. How much physical suffering, how much pain, how much medical treatment and heavy medical bills might be prevented if the dental profession really deserved to be called a learned profession, with a knowledge of disease, from the deep depths of pathological and physiological study, from opportunities daily presenting themselves, and demonstrable to every member who possesses the slightest method or *modus operandi*, how to observe the singular phenomena of diseases, their sympathetic and symptomatic symptoms which daily present themselves to the dental practitioner. How much trouble, waste of time, loss of teeth, loss of health, loss of spirits, and the grateful loss of all the terrors of chronic disorders to the afflicted patient might be prevented *if* the dentist only could be made to understand the necessity of absorbing a little—a modicum—of medical knowledge. The dentist (!) is not so much to blame, because he hears and sees some brother carpenter, some brother jeweller,

some brother dry goods clerk, in and around public places, "blowing" of the fifty dollars he "makes" weekly, intimating almost, that he is compelled to employ scavengers to take away the teeth he has extracted daily, and the blood necessary to be carried away nightly. Artizans gaining a good living, with open mouths, gulp down all this; they would like to be a dentist! a doctor!! a gentleman!!! Why should they not go and do so likewise. So up goes the shingle, and as fast as the sign-painter can fix the tin sign, so fast is the dental profession manufactured. Hence, one portion of the profession finds employment for the other—a mutual benefit society; but the unfortunate "enlightened public" remains still the same—*sans* eyes, *sans* teeth, *sans* their money, *sans* every thing.

REMARKABLE CASE OF GALVANISM.

BY A. HILL, D. D. S.

Miss J. N., a lady of a peculiarly excitable temperament, nervo-sanguine, called upon us a few days since to have a tooth filled. Said tooth was the first molar of the left inferior maxillary, and contained several fillings, which had been worn for a number of years. Among the number, was a gold stopping in the centre of the crown. Between this plug and the posterior wall of the tooth a large cavity had been formed by caries, escaping detection for a long time, by the smallness of the orifice; but which, on exposure, was found to have involved nearly one-half of the crown, and leaving the posterior wall exceedingly thin and frail. Under the circumstances, we judged it best to stop the cavity with tin foil, which, after carefully excavating, we proceeded to do. The foil was rolled up in *rope* form, with one end projecting from the mouth, while we proceeded to pack the other in the tooth. A few coils had been packed, when, to our utter astonishment, our patient gave a startling cry, accompanied with a violent spasmodic movement of the body. We paused for an instant, and then proceeded as before, when she

suddenly repeated the same operation ; but thinking that it was owing to some little tenderness of the bone, and would soon cease, we continued packing the foil, when she again started up from the chair—threw out her limbs with a sudden, convulsive effort, and, with a scream, thrust her fingers into her mouth and withdrew the foil, casting it spitefully upon the floor. Now, here, was a case. What did it all mean? We knew that our fair patient was *peculiarly* sensitive, for we have had the care of her teeth for the last twelve or fourteen years or more, but still, here was something quite strange and unusual ; nor could it arise either from direct exposure of the nerve, or sensibility of the bony structure, for, in excavating the tooth, no such manifestations took place. We inquired of her, what is the matter? Ugh! said she, "Don't know," convulsively twitching at the same time. In a moment it occurred to us, it might be the effect of galvanism. Whereupon, we took the foil, pressing one end in the cavity of the tooth, and with the other, touching a gold plate which she wore upon the upper jaw, when the same phenomenon occurred again. She started up in the same manner as before, trembling with excitement, most earnestly enquired what we had done? We then expressed to her our conviction that this singularly painful sensation was the result of a galvanic action, and requested her to allow further experiment in order to determine the fact beyond question. To this, she consented, with some degree of reluctance. We then told her what we should do, and requested her to remain as quiet as possible. On introducing the foil to the cavity of the tooth, no sensation was produced, until the upper end of it touched the plate, when, instantly, the same result succeeded. And we repeated the operation several times with precisely the same results. We have never before met with a case of galvanic action in the mouth of so marked and decided a character. And the lady informed us, that such was her constitutional excitability upon the subject, that she could not even endure the *sight* of a galvanic battery, having once experienced its disagreeable influence.

Of course, after this, we abandoned the idea of filling her tooth with tin foil, and proceeded to fill it with "Hill's Stopping," with the most perfect ease and comfort to our patient.

May not this case throw some light upon the use of different

metals in the same mouth, and also assist in the solution of certain difficult and perplexing phenomena that occasionally fall under the observation of dental practitioners?

Norwalk, Ct., Sept. 5th, 1854.

The following report of a suit, for infringement of a patent, is taken from the London Mechanics' Magazine:

It would seem that holders of Dental Patents fare nearly alike in all countries, in not being allowed to enjoy their "*otium cum dignitate*" without disturbance.

The application of gutta-percha, in the manner claimed by the patentee, has not, we believe, been introduced into this country, although our dentists have not been backward in applying the article to dental purposes, in every imaginable variety.

The Judge's remarks at the end are worthy of attention.—
(ED. REC.)

TRUMAN vs. BELLIS.

TRIED BEFORE LORD CHIEF JUSTICE CAMPBELL, 27TH AND 28TH OF JUNE, 1854.

In this case, the plaintiff had brought his action for the infringement of a patent granted to him August 15th, 1848, for his invention, entitled, "An improved method or methods of constructing and fixing artificial teeth and gums, and of supplying deficiencies in the mouth."

The Attorney-General, Mr. M. Smith, and Mr. Hindmarch, appeared for the plaintiff, and Mr. M. Chambers, Mr. Brown, and Mr. Harcourt, for the defendant.

The plaintiff himself was the first witness, and he stated that, in working according to his invention, artificial teeth are fixed upon a skeleton frame, by means of rivets or pins, in like manner as in fixing them upon frames or plates in ordinary artificial tooth-making, and that gutta-percha is then placed underneath, so as to form the bearing or surface which is to rest upon the natural gums, the gutta-percha being also pressed up over the sides or edges of the frames and round the bottoms of the teeth, to the same height as the natural gums, before they were deprived of the natural teeth.

The plaintiff and many other witnesses gave evidence respecting the novelty and utility of the invention ; and the sale by the defendant, of a set of teeth, substantially the same as the plaintiff's, was proved.

The defendant called several witnesses to prove the application of gutta-percha in various ways in the manufacture and repair of artificial teeth before the date of the plaintiff's patent ; and amongst others, a dentist, who proved that some time before the date of the patent, he repaired an old set of artificial teeth for a lady ; and that the gums having fallen, he put a layer of gutta-percha under the plate or frame, so as to rest upon the natural gums, and then pressed the gutta-percha over the sides or edges of the plate and round the bottoms of the artificial teeth.

Lord Campbell said this seemed to be exactly what the plaintiff described and claimed as his invention, and that the circumstance that the frame operated upon was an old one, could not make any difference. His Lordship then intimated to the Attorney-General that, after this evidence, the patent could not be supported, and directed the jury to give a verdict for the defendant.

CATALEPSY FROM TOOTH-ACHE.

A case is related in the *Stethoscope* by Dr. G. W. Huton :—

Willis, a plow-boy, (October last,) was complaining of tooth-ache early in the morning : half hour after commencing work, was observed "lying a short distance from the plow, apparently dead, speechless, and motionless." He was carried to the house, nearly a mile, and the doctor (five miles distant) sent for. In the belief that the effect might be produced through the dental nerve, the tooth was extracted ; when the boy "immediately got up and expressed himself as well as ever, and has continued well since." He "had been an unusually healthy boy, and had never had a physician to see him before."

EDITORIAL.

“OUR EASY CHAIR.”

Wonder if any poor editor of a Dental periodical ever enjoyed this luxury before? We know that the editors of our literary magazines have long been familiar with this article, which has really come to be a kind of indispensable, both to them, and their numerous readers. But to a *Dental* editor, this must certainly be regarded as a *novelty*—an *extra*, which every poor fellow may not indulge in. But, kind reader, we have sat upon our haunches, *un-cushioned*, so long, that every bone, in our editorial body, has been fairly creaking with pain, until the thing has become utterly insupportable, and we have resolved, that, cost what it may, we will have an “*easy chair*.”

And here we sit, very much at home, we can assure you, notwithstanding the almost insufferable heat of the past two months, bidding defiance alike to the printer, who comes growling for copy; the correspondent, who is always complaining, but never pays his subscription; and the thousand and one cares and vexations which attend the luckless wight who voluntarily assumes the position which we have occupied since January last.

It may be thought that the “*easy chair*” ill becomes one so young as ourself, and that none but a *veteran* editor can truly grace such a position. But we assure you, kind reader, we are not so young as you might suppose us to be at first sight; nor are we altogether “*green*,” for we find a smart sprinkling of grey hairs about our temples; and as for being any longer “*green*,” that is out of the question.

The hot sun around us has withered, and the terrible drought has literally dried up almost every thing around us, so that we can no longer claim to be even “*verdant*.”

Apropos of the drought, our pockets have dried up, so much so, that they present a spectacle of leanness, truly painful to look upon. Our editorial ambition has oozed out to such an astonishing degree, that, in this respect, our brain seems as dry and

unproductive as the scorched and blasted world around us; or,

"As dry as the remainder biscuit after a voyage,"

spoken of by the immortal bard of Avon. We started in our career with no inconsiderable degree of spunk, picturing to ourselves a snug little income from our labors, a noble set of correspondents, and a long list of generous patrons. But "*mirabile dictu*," we come out as tame as a caught thief, and "dry as a powder-horn," realizing neither the one nor the other.

However, our experience is worth something. We have learned a little of "*human natur*," especially that phase of it which developes itself under a professional aspect. We have made the acquaintance of some of the noblest specimens of the department for which we have assiduously labored, as well as some of the *meanest* that were ever thrown together in a bundle of flesh and bones, and covered up by the tailor. And now, after working on this *tread-mill* for six or eight months past, we have just stepped off into our "easy chair," and it is really delightful.

And here we intend to sit while the professional world wags on, occasionally looking about us to see what new thing will turn up, and where the Killkenny cats may fight the hardest. But do not think, kind reader, that we retire in disgust with all the world, and Dentists to boot; not so. We are remarkably good-natured and complaisant withal. This old chair puts us in good humor with ourselves and the rest of mankind; and when we feel particularly in the right mood for it, we purpose to give our easy and cheerful lucubrations to the generous profession, who have manifested such *marked* appreciation of our previous efforts in their behalf, as to crowd us into our present easy, but dignified position. Truth is, kind reader, "*it don't pay*" to be an editor until you get into the "*easy chair*."

Here you may "lay back" in the most careless and indifferent manner, smiling with the most perfect contempt upon all such considerations as may be supposed to be so intimately connected with the success of one's editorial labors.

As to "*paying* subscribers," that is all nonsense. A man that cannot afford to labor for nothing is unfit to occupy such a position. Is it not a sufficient mark of their esteem and appreciation that they condescend to *read* his journal?

And then the presentation of a bill, it is to be regarded as an offence against their dignity, and an abuse of their "*reserved rights*."

And, then again, who is competent to impart instruction to *such* a body of men? What vanity to presume for a single moment on one's ability to do this! especially after receiving some such note as the following:—

"DR. HILL: Dear Sir,—I have received several numbers of your Dental Recorder, and notwithstanding the efforts which you have evidently made to increase its value and interest to the profession, I must say, that I find in it nothing that I did not know before, and therefore must request you to discontinue it to my address.

Very respectfully, &c."

And all this in the face of all the best selections, which the current professional journals of the day afforded, to say nothing of the original contributions, and valuable hints, which, from time to time, were published. Perhaps the frankness and outspoken honesty of our correspondent ought to atone for his vanity and presumption. But while grinding under the chagrin and mortification occasioned by the note as above, we were greatly relieved by something like the following:—

"DR. HILL: Dear Sir,—I have received and perused the successive numbers of your Recorder with much interest and profit. I heartily thank you for sending it to me. Your article on the "Preservation of the Teeth of Children," is alone worth the price of a volume. Please find herewith \$2, which is the amount of one year's subscription.

Yours, &c."

How delightful, as we now sit in our "easy chair," to think over these lights and shadows of editorial life, and recall the alternate emotions which we felt while passing through them; and especially so, as they now affect us *no more*.

But farewell, indulgent reader, for the present. The Recorder we commit into the hands of its enterprising and spirited publishers, and its numerous friends, bespeaking for them, as well as for him who is yet to be heralded as its editor, a more generous and hearty support.

Meanwhile, we will fall back in our most comfortable sitting place, and see how things go on.

"Sic transit, gloria mundi."

(*Exeunt*) A. HILL.

It will be seen by the foregoing that Dr. Hill takes his leave of our readers as the editor of this journal. We trust, however, that they will not unfrequently have the satisfaction of hearing from him as contributor to the interest and profit of these pages. Our thanks are due to him for the assistance he has rendered us both in the previous and the present number.

Our patrons will have the goodness to excuse the absence of the usual amount of original matter in our preceding issue. We regret to say, our arrangements for the editorial supervision were unfortunately interrupted by sickness and other unforeseen circumstances; and that we were compelled to make use of such resources, in the way of selections, as were immediately available. We are in hopes to perfect our plans soon, and prevent any future necessity of apologizing for deficiency of original matter; at the same time, we shall be prompt in putting before our readers any valuable selected matter which may offer.

We quoted, in our last, some remarks by the Editor of the Dental Register, in relation to subscribers "*paying their dues.*" Although our call for payments was promptly answered by a few, the majority of delinquents still occupy the same unenviable position towards us. Will not these recollect that the printer and paper-maker must be paid, and that though \$2 00 seems a small sum to talk about, four hundred times that amount makes a sensible difference in the finance department. Hoping these remarks may induce each defaulter to enclose his subscription to us before he turns to the next page, we leave the matter with confidence that our call will not be in vain.

S. & R.

CORRESPONDENCE.

CAMBRIDGEPORT, MASS., AUGUST 20, 1834.

MESSRS. EDITORS,

The objections which your correspondent makes in regard to my way for improved sets of artificial teeth, certainly relate to important points. First, the shrinking of material in making, then the clumsiness of feeling, and the strength of the manufacture.

All tooth-body shrinks a certain amount by fusion. The precise amount of shrinkage may be ascertained by a trial in measurement, and, be this more or less, the proportional allowance may be made in the cast on which the case is formed. If the porcelain mixture shrinks by baking, one eighth, then the case must, of course, be enlarged to that amount; and a persons own ingenuity will easily suggest different ways by which it may be accomplished.

The methods I use may not be theoretically accurate, and I presume will soon be looked upon as primitively imperfect, *but they answer, perfectly, a practical purpose.*

When teeth are set upon a plate, in the ordinary way, there is always more or less of a corner, or angle, formed on the inside of the teeth by their relative position with the plate. But in my style of teeth this is filled, or made gradually sloping as in the natural mouth, and thus the thickness and strength of the plate is principally here where it is required, but tapering back to a delicate thinness in the antrum and at the edge, so that there is no clumsiness of feeling—not in the least. So far as my experience and knowledge go, in regard to the strength of this manufacture, I say, most decidedly, it is stronger and more durable than any other, and am confident that it will always prove to be so. Teeth made in this way will perform faithfully, and without breaking any legitimate use which artificial substitutes for natural denture are designed to, but if the piece is dropped any considerable distance upon the solid floor, it is more than likely to break. Notwithstanding this, I have frequently let a delicate case fall from my hand, by accident, without sustaining any injury; and, placed upon the floor, they will bear the weight of a man.

The principles upon which my manufacture is based are no secret, and very simple. There is no particular claim laid to the process of making, and I am conscious that it may be simplified and improved; yet, in its primitive simplicity, it is perfect to the accomplishment of an end which defies opposition.

When I wish to make a set of teeth, I first take an impression in the usual way, and fit the jaws accurately with some metallic plate. In these plates run plaster, and these plaster casts are then cut twice apart, at right angles; these parts separated enough to correspond with the shrinkage of the mineral; these spaces are filled with plaster, and the casts finished as for block making. The material is carved upon these casts, and baked in the same way as ordinary block work.

In the whole operation there is no difficulty as an objection ; but it is an operation requiring skill, and a bungler had better employ a workman to do it for him. An experienced block maker will find but little difficulty in preparing his cast for the mineral, or the mineral for the mouth.

Yours, &c.

MAHLON LOOMIS.

NEW YORK, AUGUST 24, 1854.

MESSRS. SUTTON & RAYNOR :

Gentlemen,—Noticing some remarks in the last number of the News Letter, respecting the original manufacture of porcelain teeth in this country, and the employment of a translucent body for the same, as I claim to have been the first to make terra-metallic teeth in this country, I send you the following statement respecting my agency in the matter :

My first attempt was in England, at a pottery then owned by Mr. Fell, at South Shields, near Sunderland ; when I introduced my teeth in London, the dentists, generally, ridiculed them, and spoke of me as the crockery dentist ; however, I managed to have the laugh on my side, as I received several hundred pounds from dentists in England, Scotland, Ireland, and some in France, in return for my instructions and recipes. My next step was to return to the United States, landing in Boston in the year 1819. Here I was greatly encouraged by the calls made on me for instructions. Drs. Flagg and Keep, two eminent dentists, paid me a large sum, and occupied my time for two or three weeks, in imparting to them my knowledge of making porcelain teeth. Dr. Flagg expressed himself as highly delighted with his acquisition, and thought that I undervalued my services. Drs. Harwood and Tucker, and Mr. Bemis, also received instructions from me.

In New York, my first pupil was Mr. Jonathan Dodge, who was then keeping school in Chambers Street, where he afterwards practised dentistry for many years. This was in 1827. John Burdell was his assistant at the time.

I called my teeth Silicious, Vitrescent, Terra-Metallic, Incorruptible, Diamond, Pearl Teeth ; these last were partially composed of Irish Diamonds, in place of quartz. Dr. Wooffendale was my second pupil in New York ; he was then located at the corner of Broadway and Courtlandt Street, and at present residing near Union Square. I also instructed Dr. S. Fitch, who occupies a mansion in the upper part of Broadway, but has since relinquished the practice of dentistry.

Dr. E. Parmlly can bear testimony, I believe, as to my being the first to make teeth, with a translucent body, with parti-colors, to imitate the natural shades. Coloring matters were the most difficult to obtain ; at that time titanium was scarcely known, and as a substitute I used antimony and iron, and occasionally silver, but at a white heat this would turn light brown ; to make the dark shades, I worked in clinker from the forge. But by almost ceaseless experimenting I obtained a good variety

of desirable coloring matters, which were purchased from me by Dr. S. Spooner, as also were other formulas for making enamels, bodies, &c. [See Dr. Spooner's work on mineral teeth.]

Dr. A. A. Plantou, of Philadelphia, was a personal acquaintance, and presented me with a certificate, to the effect that I was the first to make translucent mineral teeth.

M. Chemant was the first to make full sets of terra-metallic teeth, which he told me were made of *vanvers*, (fire brick) glazed with window glass, and when light shades were wanted, he added pipe-clay and white sand.

Drs. Maury, Fonzi, Fauchard and Delefos, all living in London, expressed a favorable opinion of my teeth, and said I might expect to make a fortune by furnishing teeth for the profession. However I have never made teeth to sell, although I did not object to give instructions in the business; but this teaching was yankee'd out of me in less than a year after landing in Boston, and in the end became anything but a profitable business.

Dr. H. H. Hayden, of Baltimore, received instructions from me, and to this gentleman I am indebted for valuable services, since rendered me.

About the year 1832, I, unfortunately, lost all my instruments, money and a large collection of specimens of teeth, by the ship in which they were being conveyed from Baltimore to New Orleans, having been lost at sea. This misfortune deprives me of the pleasure of furnishing copies of letters, certificates, &c. which I have received from time to time.

I remain, respectfully yours, &c.

HENRY VILLERS.

AMERICAN SOCIETY OF DENTAL SURGEONS.

This Society did not convene at Cincinnati as previously advertised. The meeting was revoked by the President, Dr. E. Townsend, in consequence of the prevalence of the cholera at the time of its annual convocation. We suppose that the meeting will be called, by order of the President, at such time and place as he shall deem most suitable, of which due notice will be given.

PREPARED FLAX FOR SURGICAL PURPOSES.—This excellent absorbent for drying cavities in the operation of filling teeth, or as a dressing for ulcers, is now prepared and sold by B. S. CODMAN & Co. 57 Tremont Row. We consider it, for most surgical purposes, superior to the best sheet lint ever manufactured. It is put up in convenient packages, at twenty-five cents each.—*Boston Med. and Surg. Jour.*

It can be obtained at SUTTON & RAYNOR's Dental Salesroom, N. Y.

New-York Dental Recorder;

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

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DISEASES OF THE DENTAL PULP AND THEIR TREATMENT.

A DISSERTATION, PREPARED FOR AND READ BEFORE THE ASSOCIATED ALUMNI OF AMERICAN DENTAL COLLEGES, AT THE BALTIMORE COLLEGE, MARCH 18, 1854.

BY CHAPIN A. HARRIS, M. D., D. D. S.

(CONTINUED.)

The amount of constitutional disturbance arising from the inflammation of the pulp of a tooth, depends on the state of the general health, and the nervous irritability of the system at the time. In the majority of cases it occasions but little inconvenience, and disappears as soon as the inflammation ceases, but sometimes it assumes a very alarming character. A case of fatal tetanus, produced by inflammation of the pulp of a lower molar, occurred a few years ago in Baltimore. The subject was a young lady, about 18 years of age. The system, at the time, from great bodily fatigue and mental excitement, was in an exceedingly irritable condition, but in other respects, though constitutionally rather delicate, she was in the enjoyment of good health.

There is not an organ or tissue of the body in which acute inflammation is more intractable in its nature, and rapid in its progress, than in the pulp of a tooth; and when we take into consideration its situation, and physical and vital peculiarities, it is not to be wondered that it should, in so large a majority of the cases, terminate in the disorganization of the part. Still, it may sometimes be arrested, and the remedial indications here, though they cannot be so readily and fully carried out, are the same as

for inflammation in any part of the body. The first and most important one consists in the removal of all local and exciting causes. If it be the result of irritation, produced by the pressure of a filling, the plug should be immediately removed, leeches applied to the gum of the affected tooth, and, if the patient be of a full habit, blood may be taken from the arm, and a brisk saline purgative prescribed. The removal of the filling, however, when the inflammation has previously made much progress, will not prevent suppuration, but it may prevent it from extending to every part of the pulp. When an external opening is made for the escape of the matter the moment suppuration takes place, the remaining portion of the pulp will be relieved from pressure, the cause of the irritation, and then the inflammatory action may cease. But if the matter remains in the central cavity of the tooth, the part of the pulp which has not supplicated will still be subjected to pressure, and the inflammation and suppuration will go on until the entire organ perishes. Nor will the disorganizing process stop here. The alveolo-dental membrane at the extremity of the root, will soon become implicated, and, in a short time, alveolar abscess will form, thus terminating the acute stage of the disease.

There may be no indications of irritation or inflammation for several weeks, or even months; after a tooth has been filled, but at the expiration of this time, the pulp, from an increased irritability, caused, perhaps, by some change in the state of the patient's general health, may be attacked by inflammation. Although this very seldom happens, it does, nevertheless, sometimes occur, and when there is reason to apprehend that it is about to take place, and it may be suspected if pain is felt in the tooth when anything hot or cold is taken into the mouth, or if it becomes the seat of gnawing or gradually increasing pain, the filling should be removed. If pain now ceases, a thick layer of gutta-percha, or of "Hill's stopping," may be placed in the bottom of the cavity, and the filling replaced, using the precaution, as before directed, to introduce the gold in such a way as to prevent the liability of depressing the floor of the cavity. But if the pain and inflammation should continue unabated, it may be necessary to extract the tooth, or expose the pulp and destroy its vitality by applying to it some powerful escharcotic, as the arse-

nious, which, acting more promptly and with more certainty than any other, seems best adapted to the purpose. When this is done, it is usually with the view of securing the retention and preservation of the tooth by filling the pulp cavity and root, an operation now very frequently performed by many dentists.

The abstraction of blood directly from the pulp, one would suppose, would be better calculated to arrest inflammation of this organ than almost any other treatment, but I do not think this has been resorted to for this purpose sufficiently often to determine the amount of therapeutic agency it is capable of exerting. At any rate, it seems reasonable to suppose that if, by this means, the congestion of the capillaries could be removed, the tumefied pulp would be reduced to its natural size, and be relieved from the pressure to which, as a consequence of its distended condition, it was subjected. To obtain the largest amount of benefit capable of being derived from the operation, the puncture should be made in that portion where one of the principal arteries would be most likely to be punctured, and this, it seems to me, would be just where the canal of the root enters the chamber of the crown of the tooth. But in making the puncture here, the pulp being very small at this point, there is danger of cutting it off; and, as re-union would scarcely be likely to take place, the portion in the central cavity would necessarily perish. I have made the operation (*odontrypy*) three times, and in two of the cases it at first appeared to have been successful, it having been followed by immediate cessation of pain; but this, as I afterwards ascertained, was either owing to the complete division, or the division of so large a portion of the pulp, that the part in the crown soon died, the drill having entered the canal in the root, a little above the chamber of the tooth. In the other case, the inflammation having never reached its height, the operation increased the severity of the pain, and an hour or two after its performance, at the earnest solicitation of my patient, I extracted the tooth.

If the pulp were exposed, there would be a better opportunity of relieving the congested condition of its capillaries by the abstraction of blood, but the difficulty of obtaining free access to the organ by drilling a hole through the intervening dentine is so great, the tooth, when suffering from inflammation, being usually so sore to the touch that the slightest pressure is productive of

great pain, hence the operation will seldom if ever prove successful. Unless, therefore, the retention of the tooth is a matter of more than ordinary importance, it is better to remove it at once. But if it is an incisor or cuspidatus, the pulp should either be immediately extirpated or arsenious acid applied for the destruction of its vitality; or, if suppuration has previously taken place, an opening should be made into the chamber of the tooth, as before directed, for the escape of the matter. Should it be found, after this has escaped, that disorganization has not extended to every part of the pulp, the remaining portion may be destroyed in the manner as above described. This done, the pulp cavity and root, as soon as the inflammation of the socket has completely subsided, may be filled.

It will be seen from the foregoing remarks, it is only at its very inception that there is any chance of combating successfully acute inflammation of the pulp of the tooth, and even then so rapid is the progress of the disease, it may baffle the best directed and most energetic treatment that can be adopted. It may be that when attention shall have become more generally directed to the subject, that some more successful method of treatment may be discovered; but that a complete mastery over the disease will ever be obtained, is not to be expected.

But inflammation of the dental pulp is not always acute; it sometimes assumes a chronic and local form. This often occurs where the chamber of the tooth has become gradually exposed by caries of the dentine, and when it happens, the action of the fluids in the mouth, and other foreign substances which obtain access to the cavity, as well as the decomposed portions of the tooth substance, cause an increase of vascular action in the exposed part, followed, very often, by a slight discharge, but the morbid action thus induced, is, comparatively seldom, accompanied by pain.—The pulp may remain thus partially exposed for months, and even years, without causing any other inconvenience than a momentary twinge of pain when some hard substance is accidentally introduced into the cavity of the tooth, which subsides immediately after its removal. Sooner or later, however, the pain thus excited will become more permanent, continuing each time it is produced from five or ten minutes to one or more hours after the cause of the irritation has been removed. If a tooth be filled un-

der such circumstances, the pressure of the fluid upon the pulp, which is forced out from its exposed surface beneath the plug, will give rise to a more general and active form of inflammatory action.

The liability of the tooth to ache increases as the pulp becomes more and more exposed by the gradual decomposition of the dentine, and the inflammation may ultimately assume a more active form, or the pulp may become the seat of fungous growth, or be absorbed or destroyed by ulceration, or gangrene and mortification. Cases sometimes occur in which the disease is attended with severe darting pains, occurring, very often, several times in the space of two or three minutes, succeeded by intervals of perfect ease of as many hours. At other times it is attended by dull aching pain, which is aggravated by taking sweet or acid substances into the mouth. In cases of this sort, the application of heating or stimulating substances to the exposed surface of the pulp, will usually procure relief. Permanent exemption from pain, however, is rarely obtained, and sooner or later it becomes necessary either to destroy the pulp or extract the tooth.

The body of the pulp, when the organ becomes exposed from a decayed opening in the grinding surface of a molar, is sometimes absorbed, while the prolongations in the roots often remain unchanged for two, three or more years. But when it becomes exposed from an opening in, and confined to, any of the other surfaces of the crown, it is rarely thus removed.

Chronic inflammation of an exposed surface of the pulp, when long continued, sometimes gives rise to *ulceration*—a disorganizing process which often causes the destruction of a large portion of the part occupying the central chamber of the crown of the tooth, making in it numerous little excavations. The ulcerated surface usually presents a yellowish appearance, and when the disorganizing process is arrested before it has effected the destruction of a very large portion of the pulp, it usually becomes covered with healthy granulations.

When the inflammation occurs in cachectic individuals, it often assumes an acute form, and sometimes terminates in gangrene and mortification. The loss of vitality may be confined to the body of the pulp, or it may extend to every part of the organ.—In the former case the pain continues, but in the latter it ceases

as soon as mortification takes place. When this happens, the entire pulp, which has now a dark brown or black color, may be removed. But this is not a very common termination. The symptoms of chronic as well as acute inflammation are always modified by the state of the general health, habit of body, and the temperament of the individual. The pain attending the former, however, is periodical, occurring at irregular and uncertain intervals, and constitutes that variety of tooth-ache so often relieved by local applications, whereas, in the latter it is constant.

In chronic inflammation, the pulp is either actually exposed or only covered by decomposed or partially decomposed dentine, and the diseased surface rarely embraces a larger circumference than that described by the bottom of the decayed cavity. The inflammation, therefore, is local as well as chronic, but nevertheless, it is often of so persistent a character as to render its removal exceedingly difficult. The dentist, however, is not so much restricted in the application of remedies as in the treatment of acute inflammation, and to the action of which it yields more readily. But notwithstanding all this, he will necessarily encounter difficulties in his efforts to subdue it. A greater length of time is sometimes required than the patient is willing to give, and the opening through the crown to the central cavity is, not unfrequently, too small, previously to the removal of the partially decomposed dentine, to admit of the direct application of the necessary remedial agent to the inflamed surface of the pulp. Again, it often happens that the situation of the tooth and cavity are such as to prevent him from obtaining a complete view of the diseased part, and it is important that he should do this to enable him to determine whether the inflamed surface is ulcerated, or pours out a serous fluid, or whether the morbid condition consists merely of irritation, produced by the presence of acid matter, or of partially or wholly decomposed dentine. Unless his diagnosis is correct, his prescription will be as likely to do harm as good. But, having ascertained the exact character of the disease, he may often be able to institute treatment that will result in the restoration of the pulp and the preservation of the tooth.

(Continued next month.)

A FEW REMARKS ON PLUGGING TEETH.

BY S. BABCOCK, NEW YORK.

It is frequently the subject of remark, by some of the less intelligent and parsimonious class of patients, that such or such a Dentist, on whom they have called, proposed to fill their [teeth and charge only for the cost of the gold used in the operation, taking, in that case, nothing for his services. Now, however cheap such operations may appear to the uninitiated patient, the result, in almost every case, is not only the waste of money, but the eventual entire destruction of the teeth operated upon. The importance of skillfully filling the teeth should not be underrated—there is nothing which produces so much real comfort to the patient, nor a greater source of peculiar pleasure to the scientific operator, knowing that by his careful and experienced hand, he has preserved for a fellow-being that which art cannot substitute. It may be safely estimated that not more than one operator, in every hundred, arrives at such a degree of proficiency in this truly difficult branch, as to render the great majority of their operations permanently useful. Without entering minutely into the means by which the above results are to be effected, we will simply express the opinion, that two-thirds of the cases of failure that have come under the writer's observation, are due to the manner in which the material used for filling the cavities was introduced and consolidated, and finished upon its surface. A large number of these failures, we are compelled to believe, result from a want of high-toned professional morals. To plug teeth in general practice, let the excuse be what it may, for a fee which does not exceed the cost of the material that a *good* practitioner would use in filling similar cavities, to say the least of it, savors of dishonesty. If the pecuniary circumstances of the patient require a reduction of fee, perform the operation as an act of benevolence, not of profit. To degrade a useful and scientific profession by failing to devote the full quota of time and care that such operations demand, is an act worthy only of those whose aims and views extend no further than the mere obtaining of bread.

CURE OF TOOTH-ACHE BY EMETICS.

BY CESAR FREDERICQ, OF GHENT.

We copy the following, with the appended remarks of Dr. Wood, one of the editors, from the July number of the Southern Journal of Medical and Physical Sciences, for the present month.—Eds.

The pain caused by a carious tooth, observes the author, is sufficient to induce the sufferer to try every means for relief. Of all topical anti-odontalgics, creasote, as a cauter, appears to me to possess most advantage. But, besides these remedies, there is one too much neglected, in my opinion : I mean, the use of emetics. Ipecacuanha, given in a vomitive dose, in case of tooth-ache, has been followed by a success wholly unexpected. It answered even in cases where the neuralgia has remained after the extraction of the tooth. Emetics constitute a valuable resource in cases of odontalgia without caries. There are many varieties of tooth-ache. It may be symptomatic of other affections, or it may be produced by an ephemeral cause. Commonly the pain is attributed to the caries; but, if so, why should not the pain be permanent in a carious tooth? Why do not people suffer continuously? Some determinate cause must be at work for the production of pain; and this varies considerably. The author believes that gastric disturbance often coincides with odontalgia, and that the close sympathy which exists between the stomach and the brain, explains why a powerful impression made on the former should exert an influence on the nerves of the head.—[*L'Observateur Sciences Medicales.*]—*London Lancet.*

[In cases where creasote is useful, i. e. where the nerve is exposed to irritants, emetics can be of little avail, except temporarily, as a counter-irritant. In such cases, arsenious acid, “as a cauter,” is always efficient, being combined with morphia and creasote. The nerve of a tooth being dead, and the pain arising from alveolar abscess or its antecedent, a cathartic, *for the constitutional remedy*, is generally preferable to an emetic. Indeed, where tooth-ache is treated *constitutionally*, by remedies addressed to the *primæ viæ*, whatever its direct local cause, if

aggravated by gastric disturbance, *abstinence* and *laxatives* are properly indicated, (with topical applications, suited to the case,) though an emetic answering the same end, may, in certain cases, be substituted with advantage. Where the pain is properly, purely neuralgic, from general nervous irritation, (in which, of course, creasote and the like, are wholly useless,) a "powerful impression" on the stomach may be effective, (at least temporarily,) by diverting the irritation, or, perhaps, benumbing the nervous sensibility of this organ, supposing it to be the seat and source of the irritation.]

A WORD ABOUT TIN.

BY F. H. CLARK, NEW YORK.

Among the various materials in use, for filling teeth, I consider tin, in some respects, and under certain circumstances, as deserving the first rank. Gold for a permanent filling, where it can be used with a certainty of success, is undoubtedly best; but there are many cases where permanence is hardly expected in our *first* efforts to preserve badly-decayed teeth. It may be that temporary fillings are (since the introduction of amalgam,) getting a little out of fashion, but any dentist of many years experience, can testify to many teeth having been saved by means of temporary tin fillings, as a preparatory means for future permanent ones. How often do experienced members of our profession hear the boast of the youthful dentist, that he has succeeded in filling *with gold*, the teeth that such men as Hayden, Newton, Hudson, or Parmly have thought proper to fill with tin? These youthful geniuses are wholly ignorant of the main fact, that some of these teeth are only in existence through the means employed by these fathers in Dental Surgery. Thousands of teeth have been preserved alive, and useful by what is now called a soft tin filling, since a period long anterior to the introduction of arsenic for destroying their nerves.

We have had, of late, so much of controversy in regard to gold and amalgam, that the virtues of tin have been almost forgotten.

Almost every dentist of long practice, looks back with pleasure to the time when he was in the habit of filling most very large cavities with tin, particularly in the mouths of his less opulent patients; and he feels rich in the consciousness of having done good when he meets these cases now, although his pockets may not overflow with the yellow metal.

It has not been customary to charge high prices for tin fillings; indeed hardly ever enough to compensate the operator for his best efforts. Who will spend half an hour to insert a filling of tin foil, when an amalgam one can be inserted equally well in ten minutes or less? I mean, of course, exclusive of the time taken to prepare the cavity.

The absurdity of charging from three to five dollars for gold fillings of only moderate size, and only one or two for the most difficult tin ones, is monstrous.

This practice alone has driven tin much out of use, for it can hardly be expected that dentists will war against a popular delusion, when their interests plainly point the other way.

I believe it is conceded, that when we fill a tooth with gold, we simply perform a mechanical operation of more or less difficulty, according to circumstances. That it is one of the nicest of mechanical operations, all things considered, no one of practical experience will question; and hence so many failures.

It is not believed by any, that there is any medical quality in pure gold in its metallic form, whatever there may be in its oxide or salts.

We find that when a tooth is perfectly filled with any indestructible material, decay is arrested at that point, but in many cases change of temperature affects the tooth very disagreeably for a long time after the operation. I find, on this account, amalgam the worst, very hard and solid gold fillings next, and tin (as usually inserted,) the least.

My experience has been very large for the last few years, in the care of children's teeth, and for filling them I have generally used gold. Occasionally, however, when I have felt a peculiar interest in a child's welfare, I have broken through the prejudice of parents, and the custom of my professional brethren, and filled them with tin, intending, at a future time, to re-fill them, if it should be required. In nearly all these cases my efforts have

been crowned with success, and although I have unquestionably lost money by it, I have gained the approval of my own conscience.

NOTE TO THE EDITOR.—I have hastily thrown the foregoing together, hoping to elicit the opinions of others on this subject. I wish, particularly, to hear from the elder members of our own profession. To the younger, I will only add, "Prove all things, and hold fast what is good."

F. H. C.

From the American Journal of Dental Science.

A PAINFUL SITUATION BOTH FOR PATIENT AND PRACTITIONER, AND THE ADVANTAGE OF PRESENCE OF MIND TO THE LATTER.

BY J. L. LEVISON, D. D. S., ETC.

MR. H——, a nice old gentleman, about seventy-five years old, applied for my professional services, and I incidentally noticed at that time, that he had strong symptoms of disease of the heart.

Subsequently, having had an accident with his bone lower jaw, he called upon me for another, which he specified must be ready at such an hour, and on a particular day. The promise was made, and punctually to the moment, his carriage drove to my door, and soon my servant showed him into my surgery.

It may be remarked, that he had been a free liver, enjoying life, as it is called, and when in his early days, it is probable, that he would not do what would have been deemed a great disgrace—shirk his bottle; but which now, by a change of custom for better, would have been regarded the better proof of an educated man. He was, however, a very nice, urbane, and cultivated gentleman, about the middle height in stature—with light blue eyes, a florid face, and of a sanguineous temperament; and as he entered, having more closely observed him and his mode of breathing, it was evident that he was affected with *angina pectoris*. After an almost automaton bow of re-

cognition, I pointed to my operating chair, and he sat down without either of us having spoken a word. But as I turned my back to him, in order to open my mahogany work-board, I merely said, "You are very punctual, sir!" when immediately after I heard a curious gurgling sound, and turning round to ascertain what it could be, I saw my patient with his head thrown backwards—his face livid—his eyes fixed, and his lips open and motionless, as if he was either in *articulo mortis*, or had actually already given up the ghost! My first act was to feel his pulse, but he did not seem to have one, and yet I could not believe him to be dead. I therefore threw open the window, and dashed some cold water in his face, and watched the result with breathless anxiety. Soon, to my great satisfaction, I saw him move. He then opened his eyes with a peculiar stare, like one suddenly recovered from a fit; he endeavored to speak, but his tongue moved heavily, and there was a thickness and indistinctness in his words, in the manner of one partially apoplectic. Whilst I was perspiring at every pore, he pointed to his mouth, and seemed impatient and somewhat annoyed that I did not proceed.—Having tried the fit—which was very good—yet I was so anxious lest he should relapse, that I urged him to call another day, and would willingly have foregone the receipt of the fee to have got him safely out of my house. But the good old man, by gesticulation and his "unknown tongue," seemed to insist on my keeping my bond, so I put in the jaw. It fitted admirably well. He felt in his pocket, muttered something, then felt again, as if annoyed at his disappointment. Interpreting these actions to the fact that he had forgotten his purse, I said, "never mind the money, sir;" at which he said something which I could not understand. Again his head fell backwards, and his face assumed a darker hue, and again his spirit seemed as if it had departed.

I had recourse to similar treatment, though it appeared a forlorn hope. Still I persevered, and placed some strong ammoniacal salts to his nostrils, and after a vast amount of labor and anxiety, he once more, to my great relief, breathed again. And as he recommenced seeking for his purse, I repeated, "Pray, never mind the money, you are very ill, do let me beg of you to return to your residence?" "No! no! no!" said the worthy man—"some paper! some paper!" I gave him paper, under

the notion that it would be a means of expediting his departure and so it did; for he wrote a few hieroglyphical signs for a check, and then I induced him to take my arm, and as quickly as my humanity permitted, I got him safely to the street door, which my boy opened, and all assisted the coachman to get the patient into his carriage. He was driven to his temporary home, (as he was a visitor at Brighton,) and died a few hours afterwards, having, however, sent the fee immediately on his return.

What may be called *presence of mind*, in this case, might be rendered thus: That though greatly agitated at the prospect and annoyance of a coroner's inquest at my own residence—these thoughts mocked me, inducing some agitation—at the same time being cognizant of the fact, that unless I could stimulate him by the means used, so as to rouse his brain and excite the heart's action, that there was not the least chance of his recovery; and it was, therefore, the cool and deliberate manner which carried into effect the decision of the intellect, and the firmness of purpose by which I persisted in my operations, (varying the means and their application according to the particular exigency); it was these combined, (the intellectual powers and firmness,) which constitutes what men designate "*presence of mind!*" and which is easily distinguished from those mere impulsive acts under some difficulty, as much as is the difference of a practitioner acting from sound theoretical views, and one who is merely guided by some empirical treatment. The latter may succeed—the former *must* do so; and therefore, in any unexpected difficulty, the question with myself has ever been—What is this? What has caused it? How shall it be treated? And when satisfied on these points for all practical purposes, I act promptly, and recommend all "to do so likewise."

We cannot better comply with the request of a Correspondent, than by making the following extract from Dr. Leslie's Address on Metallurgy, delivered before the Mississippi Valley Association of Dental Surgeons, and first published in the Dental Register of the West:—

"Throughout the entire circle of our operations we are con-

stantly reminded of the importance of having instruments constructed of good steel, and properly tempered. And the fact that we are frequently compelled to repoint excavators to adapt them to peculiar cases, necessarily forces us to acquire a knowledge of the manufacture of steel, and the best modes of tempering it. Steel, you are doubtless aware, is a carburet of iron, the compound being formed by placing bar iron imbedded in ground charcoal in an oven shaped furnace, and raising the heat gradually to 100° Wedgewood, at which it is kept for six or eight days. There are three kinds of steel known in commerce, under as many different names. Blistered steel is the carburetted bar iron, just as it comes from the furnace, and presents on its surface numerous blisters, which are attributed to the bursting of vesicles of carbonaceous matter. The next quality is known under the name of *shear* steel, from the fact of its being used in the manufacture of shears for dressing cloth. It is formed by binding several bars of the blistered steel together, heating to the welding point, and subjecting them to a process of tilting, which condenses the particles, from which results greater toughness, and a susceptibility for a higher polish. The third kind has been introduced at a comparatively recent date. It is known under the name of cast steel, and is used in the manufacture of the best cutlery, surgical and dental instruments, fine files, and the best mechanical tools. In its manufacture, the blistered steel is broken into fragments, which are placed in a crucible and melted and cast into ingots, hence its name. It is susceptible of a higher polish than the shear steel, but must be worked at a lower heat. A good article of cast steel, when purchased, presents a fine grained surface, entirely similar throughout. The addition of 1-500 of silver to steel, is said to render it susceptible of a higher polish and keener edge.

The addition of iridium and osmium to iron, forms a compound, which may be tempered, and is less liable to oxydize than iron or steel. In working steel, an important point is, to make it as soft as it possibly can be made before filing; this is best effected by making a fire of soft wood over the objects to be softened, and allowing them to remain in the ashes until perfectly cold. The mode I adopt for repointing the excavator, is to heat it in the flame of an alcohol lamp, and by means of a pair of

very long beaked pliers, also heated, I bend it to the desired shape while in the flame. In hardening and tempering steel, water is most generally used; some cutlers prefer oil, while some die sinkers make use of naphtha, which having no oxygen in its composition, the chances of injury are somewhat diminished.—The mode I pursue, is to heat an inch of the point of the excavator to a bright red, (generally by means of the blowpipe,) and quench immediately in cold water. This, if the steel be good, makes the point nearly as brittle as glass; it requires next to be tempered. In tempering steel, the workman is guided by certain successive colors, which a bright piece of steel assumes when subjected to a gradually increasing heat, each of which colors indicates a different degree of hardness, and he with certainty selects the temper suited to the work, by selecting the color indicative of it. By some operators, nine different colors are distinguished. They have four shades of yellow, from a faint to a brown yellow, two of purple, and three of blue. If we resolve these into three shades, I think we will be in possession of the variety required by the dentist. These would be a bright yellow, a purple, and a full blue. The first for large pointed excavators and scalers, the second for small ones, and the third for pluggers and forceps. After hardening, the next step is to polish the point, so as to show the changes of color, (the easiest mode for the dentist is to rub it on the oil stone.) The instrument I then place in the flame of the lamp, allowing the polished portion to project beyond it. Close by the flame stands a tumbler of water, into which the instrument may be instantly plunged, as soon as the desired color presents. The color, of course, shows itself nearest the flame first, and gradually reaches the point, which is the spot the eye should rest on. The first color assumed is the yellow, (the fainter the yellow, the harder the instrument); next the purple, followed by the light blue, the full, and the dark blue.”

To the Editor of the Dental Recorder,

DEAR SIR,—The accompanying proceedings I intended to have sent on to you a month since, but professional engagements at the time prevented, and since that time it has slipped my memory. If not too late for the October number, they are at your service.

Yours sincerely,

CHARLES BONSTALL,

September 9th, 1854.

Cincinnati.

AMERICAN SOCIETY OF DENTAL SURGEONS.

A number of dentists from different places, who had come on to attend the American Society, having met in Cincinnati, on Tuesday, August 1st, 1854:

A meeting was held at the Burnet House, during the afternoon; present, Drs. William H. Goddard and Samuel Griffith, of Louisville, Ky., C. W. Spalding, of St. Louis, Mo., W. H. Dwinnelle, of Cazenovia, New-York, — Wheeler, of Murfreesborough, Tenn., H. R. Smith, of Terra Haute, Ia., and James Taylor, Charles Bonsall, A. Berry, and Joseph Taylor, of Cincinnati, Ohio.

Most of the afternoon was passed in an examination of samples of crystal gold, manufactured by A. J. Watts & Co. of Utica, N. Y., and a comparison of plugs made from it, and other makes of crystal and foil gold, which examination was conducted partly by the use of a powerful microscope, and appeared to satisfy all present, of its great superiority over other crystal, and for many cavities over foil gold. Before adjournment, the company visited the new building, now in the course of completion, for the use of, and belonging to, the Ohio Dental College Association. The gentlemen present expressed themselves much pleased with the appearance and adaptation of the building to the purposes it is intended for, and considered it highly creditable to the West, particularly as being the only complete College building *belonging to the Profession, and devoted entirely to the purposes of Dental Education.* Adjourned to meet at the house of Dr. James Taylor, at 7, P. M.

Met according to adjournment, when Dr. Goddard was chosen chairman, and Dr. Bonsall, secretary.

On motion, the chair named Drs. Spalding, James Taylor, and Smith, a committee on business, who reported a resolution of regret that the notice of the postponement of the meeting of the American Society to have been held here this day, had not been more generally sent out, particularly to the members of the Society, two or three of those present having received no notice; also, regretting an apparent misapprehension in relation to the health of the country, together with an assurance that Cincinnati is, and has been, during the season, almost entirely free from *Cholera*, probably more so than either of the larger Eastern Cities; and so far as the necessity for using the *Western waters* as a medium for reaching Cincinnati is concerned, we would assure our brethren, that our country is well supplied with rail roads, so that the use of the rivers may be dispensed with for that purpose. The committee suggest the fourth Tuesday, being the 24th day of October, as a suitable time for the meeting of the Society, which would give time for such gentlemen as are connected with any of the Dental Schools, to get home before the terms commence, on the 6th of November; and we will hope for a full delegation from the North and East, as well as the South and West, at that time, and that we will cordially extend the hospitalities of the West to such of our professional brethren as may attend then.

The foregoing resolutions were approved, and after a vote of thanks to our host, adjourned.

WM. H. GODDARD, *Chairman*.

CHARLES BONSALE, *Secretary*.

In the August number of the New-York Scalpel, edited by Dr. E. H. Dixon, is mentioned a very peculiar case of abscess, recently treated by one of the dental fraternity of this city:—"We have examined the jaw of a very estimable lady of this city, which was condemned to resection by several eminent surgeons, in consequence of necrosis. She declined the operation, and applied to Dr. H. E. Schoonmaker, of Twelfth Street. That gentleman detected a molar tooth partly decayed and deeply imbedded in the bony exostosis; he pronounced it to be the cause of the dis-

ease, and persuaded her to have it extracted. She is now the very personification of health, the jaw having entirely recovered its size ; the case reflects the greatest credit on Dr. Schoonmaker."

On application to Dr. S. he furnished us with the annexed description of the case, written by a personal friend of the patient. He also informs us that the exterior opening has entirely healed, leaving but a slight scar, and so far from the difficulty having its origin in *scrofula*, her system is entirely free from any taint of that disease.

For the last ten or twelve years, Mrs. Charles Partridge has been seriously afflicted with an abscess, which formed under the left side of the lower jaw, and extended entirely through the integuments and muscles of the cheek, and upward through the gum. Not only has the patient been subject to extreme pain during a great part of this time, but her general health has been impaired in consequence, and the discharges of purulent matter, externally, have been almost uninterrupted. All her efforts to obtain relief were unavailing, notwithstanding, she consulted several of the most distinguished physicians and dentists in this city, and others, not less celebrated, in Boston.

During the last four years the case of Mrs. P. has been treated by a gentleman of acknowledged science and skill, but without obtaining any important results, his diagnosis having been founded on the supposition, that the difficulty had its origin in a *scrofulous state of the system*, in which opinion he was sustained by other distinguished medical gentlemen. It was presumed that the disease (*scrofula*) had developed itself in a process of the jaw, which, in consequence, had become carious, and that the inflammation, incident to carious bones, had produced the abscess. Moreover, the opinion was expressed, that ultimately it might be necessary to amputate the diseased portion of the jaw, extending from the posterior angle, anteriorly to the centre of the chin.— This was not likely to be a very pleasant kind of treatment, and the patient, as may be supposed, was inclined to postpone the operation.

Some time since, Dr. H. E. Schoonmaker, of New York City, called on Mrs. P., and after an examination of the diseased part, very promptly assured her that the nature of the case had been

wholly misapprehended by those who had preceded him in the examination; that, in his opinion, her sufferings had been occasioned by an invisible *wisdom-tooth*, which should have made its appearance some fifteen years previous; that the tooth was, doubtless, fully developed, in the jaw, but had failed to exude, on account of a protuberance of the gum. Dr. S. expressed his conviction that the tooth was dead, and being now a foreign irritating substance, had caused the abscess; and that if it were removed, a cicatrization would doubtless succeed. Such an opinion had never before been pressed by any one, and as the reader will naturally enough conclude, the patient was but little disposed to entertain this hypothesis, especially as it contradicted all the learned opinions she had received, from the beginning. A distinguished clairvoyant was also consulted, but the examination failed to discover the cause of the difficulty, and the treatment prescribed was wholly unsuccessful.

Although the patient still possessed undiminished confidence in the professional ability of the gentleman to whom she had confided her case for four years, she, nevertheless, yielded so far as to request Dr. Schoonmaker to perform the operation he proposed, which, to the surprise and joy of both patient and friends, resulted in the discovery and removal of the offending tooth. Immediately the discharges ceased, pain and inflammation at once subsided, and the diseased parts now appear to be rapidly healing.

BALTIMORE DENTAL COLLEGE.

It must be gratifying to the friends of this Institution to notice the evidences of its increased prosperity. By the fifteenth annual announcement, (for the session of 1854-'55,) we are informed of the completion of the arrangements, connected with the new College building, including an entire refitting of the Operating and Mechanical Rooms, and the re-construction of the Dissecting Room, which last has been extended to three times its former size. The Faculty are thus enabled greatly to enlarge

their plan and means of instruction, and to promise every facility to students for a thorough attainment of the principles of Dental Medicine, Physiology, and Mechanics. A card in our advertising pages, names the Professors conducting the various branches, the days of commencing and closing the session, &c.

NEW COMPETITORS IN THE FIELD.

We have received a lot of plate teeth, manufactured at the Laboratory of Dr. T. Wardle and Mr. E. C. Stockton, who have lately united in this branch of business. The teeth are without the objectionable glassy appearance, possessing at the same time a natural translucency; the colors and shapes are decidedly good, and if severe tests are any guide, there is not a stronger tooth in the market. The latter-named gentleman has, we believe, been heretofore employed with his father; Dr. Wardle, also, has had considerable experience in working tooth material, as well as in the practice of Dentistry; and the combined energies of both, will, doubtless, produce an article fully sustaining the reputation of the well-known STOCKTON TEETH. Arrangements will soon be completed for furnishing Sutton & Raynor's Salesroom with a well-assorted stock.

From the Dental News Letter.

REVOLUTIONS IN MECHANICAL DENTISTRY.

We have received an article informing us that an improvement has been made in making sets of teeth, to consist entirely of porcelain, dispensing with the use of gold, and that they are so superior, that neither the dentist nor the patient that sees them once, will ever be guilty of going back to the old way again.—What will be the end of this constant and rapid improvement to which Mechanical Dentistry is *exposed*? To render this im-

provement more valuable to the profession, it has already, so says the writer, been patented in this country, England and France. The ink is not yet dry that recorded an improvement in making blocks with moulds in such a rapid manner, as to accomplish as much in "five minutes as is done in as many hours" in the ordinary way; we think this *remarkable*. A premium has also just been awarded by the Pennsylvania Dental Society, for an improvement in moulds for the same thing. *Continuous gums* will suffer amidst all this, and the snail-paced plodder with his pen-knife, finger-drill, &c., will soon be among the things that were. *Enamel plates*—we hear no more of them. Have all the world that experienced that "*nasty metallic taste*," when bare gold was employed, been served? There has been a great deal of time spent by experimenters to get rid of that *metallic taste of gold*. How are loaded sets of teeth progressing, where the gum was made of *tin*, and galvanized with gold, to get rid of that *metallic taste*?

J. D. W.

DENTISTICALS IN FORMER TIMES.

A highly esteem'd Stiptic to fasten loose Teeth, be they Rotten or Sound, in Old or Young, which fixes them in the Alviolus and in their Sockets, like Nails in a Board, causing also the loose and flaccid Gums to grow fast to the teeth, whereby both are preserved continually to Admiration. Numbers of people have experienced it, and praised it to the Skies, after a vain trial of 40 other things. In a word, if it answer not expectation, or if anything on earth can excell it, your Money shall be returned. Price 1s. the bottle. Sold by Mrs. Haws, Perfumer, in the Narrow Westgate, or Entrance into the West Walk of the Royal Exchange, and at the 7 Stars Toy shop, under St. Dunstan's Church in Fleet Street.—*Post Boy*, May 30, 1718.

Gamaliel Voice in Whalebone Court, at the lower end of Bartholomew Lane, Lothbury, near the Royal Exchange, setteth in Artificial teeth in the most exact manner, which, are so fitted and set in, that they may be taken out and put in again by the persons themselves, and are not to be discerned from the Natu

ral; they not only preserve the speech, but also preserve the teeth next to them from loosening or falling out, but those who have Stumps to set them on, may, with the greatest security, depend upon it, that they will answer the Ends of Natural teeth.

N. B.—Those that are at a distance, and have not opportunity of coming to town, may be furnished with any number that are quite out in Front, if the next be fast; this must be done by sending a pattern, which he will direct 'em to do if they please to send a Letter to him, paying the Carriage by post or otherwise.—*Fox's Weekly Journal*, January 4, 1728.

THE CRYSTAL PALACE AWARDS.

The subjoined letter from Prof. Renwick of this city, appeared in a daily paper, a few days since, as an off-set to a communication from Dr. E. Parmly, (at present in Paris.) Dr. P. insists that the Committee on Dentistry agreed to leave their majority and minority Reports to the decision of Dr. Carnochan, individually, and quotes from Drs. Trenor & Carnochan, in support of his position. Dr. C. himself, appears to have understood that he was selected as umpire, without regard to the other members of the Jury on Surgical Instruments. Prof. Renwick, who made the suggestion about disposing of the subject, places the matter in a light, which we hope, settles the trifling difficulty satisfactorily.

FIFTH AVENUE, NEW-YORK, Oct. 10, 1854.

DEAR SIR,—You have called my attention to an article in THE TRIBUNE, of this morning, signed E. Parmly. However unwilling I may be to appear again before the public in a discussion of so little interest to it, I cannot refuse you the benefit of my testimony when your veracity is so bitterly assailed. I must therefore deny, in the most positive manner, that it was ever proposed by me that the matter in dispute should be referred to the Committee on Surgical Instruments, or that it was unanimously agreed that the whole should be referred to Dr. Carnochan, and that his decision should be final.

I have, in another place, and at considerable length, denied a similar assertion made by Dr. Trenor, and corroborated my statements by the evidence of an impartial witness, who, fortunately, for the cause of truth, happened to be present. Of what I have then stated it is sufficient for your purpose to repeat—that, when it was urged upon me in my capacity of Chairman and Reporter of Jury F, that I should take it upon myself to decide the points on which the Committee on Dentistry was not agreed, I finally and reluctantly assented, on the condition that I should be at liberty to consult the *members* of the Committee on Surgical Instruments; that at the moment when this permission was awarded, Dr. Carnochan entered the room, upon which I said, “Here is one of them, and I will place the papers in his hands.” To the best of my recollection, the Committee instantly rose, and I believe that no other words on the subject passed between Dr. Carnochan and myself in the presence of the Committee. My subsequent conference with Dr. Carnochan was very brief. It was delayed by a private conversation with the Chairman of the Committee on Dentistry, and terminated by the signal for closing the Crystal Palace. I have no recollection of anything positive that then occurred between us, except an inquiry on my part, in relation to your own standing in your profession, and a very complimentary reply on his. I had by this time made up my mind, if my inquiries in relation to your skill, were satisfactorily answered, to adopt your Report in addition to that of the majority, and it may have been owing to my own strong impression in favor of this course, that I left Dr. Carnochan with the decided belief that he concurred with me in this opinion. This impression was so strong on my part, that I acted upon it, for, after seeing Dr. Ludlow the following morning, and receiving an equally high opinion of your professional standing, I acted upon it, by drawing up my Report, without consulting any other member of the Committee on Surgical Instruments. With this report I was about to set out, two days afterwards, for the Crystal Palace, when I received a letter from Dr. Carnochan, recommending that no more than a single article should be added to the Report of the majority. My Report was modified in conformity to


this communication, and the letter itself was enclosed with my Report to the Commissioners of Juries.

Now, I can readily understand how Dr. Carnochan, who had heard no part of the discussion in the jury-room, might, in conversation with some one who had been present, have been induced to think that he had been named umpire, and that my handing him the papers constituted him such. But I am positive that the word umpire was not so much as breathed in any communication to him, either before the Committee or in private. I do not think, that in his letter he assumed to act in that capacity, but as that letter is, no doubt, on file at the Crystal Palace, it will speak for itself. Between his statement and mine, therefore, there is, as yet, no discrepancy. With Dr. Parmly, however, I am unfortunately at direct issue, for I cannot understand how he should have forgotten that the whole matter was left entirely to me, at first, indeed, on your proposition, assented to by the other members, but afterwards on the strong urgency of both Dr. Trenor and himself. Nor can I understand how a permission to consult with the members of the Committee on Surgical Instruments, imposing no obligation on me to follow or to even ask their advice, should have been construed in his imagination into the appointment of an umpire. I can only ascribe this forgetfulness to the state of angry excitement, in which he appeared to be, and which threatened to break up the meeting in disorder.—It was to apologize for this that Dr. Trenor followed me from the jury-room, and I can only say that it was obvious that any cool discussion of the points in dispute was impossible, and that an attempt to reconcile the conflicting opinions would have been unavailing.

Yours sincerely,

To Dr. C. C. ALLEN.

JAS. RENWICK.

 To OUR EXCHANGES.—There are several Journals, to whom we send regularly, which we do not receive. Our Publication Office is at 609 BROADWAY, and Exchanges directed thus, and marked *Exchange* on the wrapper, should come safely.

S. & R.

New-York Dental Recorder;

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

Vol. VIII.] NOVEMBER, 1854. [No. 11.

From the New York Medical Gazette.

TREATMENT OF ALVEOLAR ABSCESS.

BY CHARLES W. BALLARD, M. D., D. D. S.

THE following method of treating Alveolar Abscess has not, I believe, been laid before the Profession. I have been pursuing it for several years with an almost uniform success, and now feel warranted in recommending the practice. I do not think the number of failures to cure abscess of from ten days' to two years' standing have amounted to five per cent. on the number treated. It must be understood, however, that I have by this method treated no case where the disease has been caused by external violence, applied so as to injure the alveolar processes, and but few where it has been the result of spontaneous death of the nervous pulp without apparent exposure or injury from the surface; in these few, however, the success of the treatment has been of the most satisfactory nature.

Almost all cases of alveolar abscess are caused by the decomposition of the pulp, which, extending to, or in its results affecting the periosteum of the tooth, gives rise to a greater or less degree of inflammation of that membrane; lymph is thrown out, a sack is formed, which, becoming filled with pus, eventually bursts, and its contents force an opening through the gum, causing the unsightly and often painful abscess, and from which is discharged into the mouth a quantity of matter of the most injurious and often offensive character.

It is obvious that the exciting and continuing cause of this dis-

charge must be the decomposed substance contained in the nerve cavity of the tooth. Of course no plan of treatment could prove successful which did not entirely eradicate the decomposed mass; and experience has taught me, that, unless every *trace* of decomposition in or about the tooth is removed, no permanent success can be relied upon, or even expected. I had been led to believe that all that could be done in these cases, was to remove the decay from the tooth, as well as the decomposed substance contained in the nerve cavity, and then, after filling the whole with gold precisely as though the nerve had just been excised and removed, and no abscess had ever existed, to cauterize in one of the various ways the abscess or external opening upon the gum; and my impression is, that at the present time this course of procedure constitutes the main reliance of the Dental profession for the cure of this most annoying disease.

After operating in this manner for some time, and finding my success not equal to expectation, I set it down as a poor sort of "forlorn hope" operation, not to be brought into requisition until other treatment had failed, and not to be depended upon even then. In theory, the operation seemed good, but there was a link wanting to enchain success to the practice, and this link, I believe, I have supplied.

Some three years since, a patient came to me complaining of an abscess that had become to her almost unbearable. The history she gave of it was an "oft-repeated tale." The tooth—a superior left canine—had become diseased; in the attempt to remove the carious portion, so much pain was experienced, that the operator determined to put something (arsenic, I suppose,) into it, in order to remove the sensibility. After a few days, the decay was removed and the tooth filled. In a few weeks it began to give trouble; to ache; to feel a little loose, and to seem longer than the other teeth. Soon it commenced to throb, the face to swell, and then an abscess formed and discharged, relieving all the previous symptoms, but continuing, up to the time of application to me, to discharge a fluid, which, becoming more and more offensive, had, at the end of two years, rendered the patient's situation an exceedingly unpleasant one; the most mortifying part of which was, the consciousness that the diseased tooth caused her to be an annoyance to her friends. Although I

had often met with similar cases, I had never attempted to cure an abscess of so long standing.

The patient declared her willingness to have the tooth extracted, provided no other mode of relief could be suggested. After explaining to her the method of operating pursued in such cases, and informing her of the poor chance of success, she requested me to experiment with a view to both save the tooth and rid her of her trouble. Upon removing the filling and cutting through to the nerve cavity, with the intention of removing the remains of the decomposed nerve, I was much astonished at finding the cavity *empty, and perfectly clean and dry*, and yet connected with this tooth was an alveolar abscess of the very worst description, and which I had every reason to believe originated in the nerve cavity. This cavity had never been opened before, so that it was impossible for the nerve to have been removed by manipulation. According to the generally received opinion, this abscess "had no business to be an abscess;" it had no valid excuse for existence. There were no remains of nerves or decomposed matter visible; the canal was perfectly dry; upon filling it to the foramen with floss silk, and then withdrawing the strands, no moisture or discoloration could be detected upon them. In fact there were but two reasons why the case could not have been taken for a recently performed operation of removal or extirpation of the nerve: one of these was the absence of that peculiar pinkish shade always noticed in the parietes of the nerve cavity, and which is due to the translucent properties of healthy dentine; and the other, the exhalation of the odor mentioned above, which was by many degrees more powerful than pleasant. Not caring to proceed hastily in this case, and having full license from the patient to experiment, I dismissed her after having made another appointment.

I freely confessed that this case perplexed me exceedingly.— After studying it for some time, I came to the conclusion that the decomposed nerve had been *mostly* got rid of by means of the abscess; that the remainder had been infiltrated into the dentine, and that the effluvia arising from this portion being exceedingly acrid, had caused sufficient irritation to prevent the abscess from closing. I considered the trifling discharge from the abscess to proceed from the sack at the apex of the root, a result

of the acrid nature of the odor proceeding from the tooth, and that this last was caused by the decomposed animal matter contained in the dentinal tubes.

Upon removing the dentine from the sides of the cavity, which I did upon the return of the patient, and finding that I gained little or nothing by so doing, I determined, for my own comfort, as well as for the purpose of ascertaining the value of the anti-septic powers of the drug, to substitute the vapor of creosote for the one so noxious. This I did, closing the cavity air-tight with wax immediately after introducing the creosote.

The next time I saw my patient, she remarked that there had been a marked improvement, but that traces of creosote had been noticed. It was at once proved that the diagnosis had been a correct one—the vapor of the drug having forced its way through the canal, foramen, and abscess, into the mouth, and, of course, tainting the breath. The advantage gained by this experiment was so manifest, that I determined to renew it; this I did several times, and then filling the cavity with floss silk and closing the opening, I requested the patient to call at the end of the week.

(Concluded next month.)

For the Dental Recorder.

IMPRESSIONS IN PLASTER OF PARIS.

MR. EDITOR,

In compliance with your request, I will give you some practical thoughts on taking Plaster Impressions; and in doing so, I do not expect to say anything that will be *new* to the most experienced and profound of my professional brethren. That which is plain and unvarnished will not, I trust, be unacceptable to a few of your readers, inasmuch, as I suppose, it is the business of the journalist to bring forth not only things which are new, but also to spread before the minds of his numerous readers those things, which, although they have not the novelty of

new inventions, are, nevertheless, interesting and useful to those who do meet with them for the first time.

There are so many at the present day who are just entering the profession, as well as a great number who are already in the practice of dentistry, that have not had the most favorable opportunity to learn the modern improvements in Mechanical Dentistry, and are not familiar with all the best modes of manipulation—that anything practical relating to these subjects, although it may be familiar and common place to the more experienced, will not prove unacceptable to many of your readers.—Perhaps the better informed will be conciliatory towards the uninformed, while we say something which is already well-known to many.

In order to take good plaster impressions, two or three things are essential. First—There must be a suitable *cup* or *holder* provided, to receive and retain the plaster. To secure this, some first take a wax impression in an ordinary holder, and then after it has become suitably hardened it is trimmed, and enlarged around the rim of the impression to make room for the waste plaster. A very thin mixture of the plaster is then put into the impression, and spread on the surface of the wax where the impression is designed to be made.

The wax impression should not be filled with the plaster.—The wax being so near the form of the mouth, it is only necessary to cover the wax with a thin coating of plaster.

A better way than this is, to take a block-tin or britannia holder, formed as near the shape of the parts designed to be copied as possible, and the best holders I have seen for this purpose are some I recently found at the Dental Salesrooms in New York. They are heavy britannia holders, made on casts of the mouth. To adapt these holders to the purpose of taking impressions in Plaster of Paris, I cut and bend them, (which can be easily done) into such shape, as best suits the case in hand.

They are susceptible of being cut or bent as easily as lead, though this may sometimes destroy the holder for future use.

For difficult cases, after taking an impression, a plate should be struck up of some base metal—it may be brass or copper. This plate is then used as the plaster holder, the edge of the plate being bent outward, somewhat, to make room for the plas-

ter. There should always be a small orifice drilled in the arch of the *holder* of the upper jaw, to prevent the impression adhering to the mouth, by atmospheric pressure, which will prove a serious hindrance in removing the holder, if this precaution is not taken.

The under jaw always presents the most difficulty in securing a perfect impression with the ordinary holder, with the use of plaster; but this may generally be taken with wax, with more ease than that of the upper jaw. The swaged plate, as a holder for plaster, may always be depended upon, when other modes have failed of success.

Where there has been a failure to make a perfect fit, the plate prepared for insertion, may be used as a holder. If the proper course is pursued, in taking the impression, the under jaw requires much less labor in adapting a plate to it than the upper jaw, and there is none the less surety of success.

A suitable holder having been procured, the next important step is to mix the plaster, with water and salt in suitable proportions, and adjust the paste to its place in the mouth, just at the moment it has acquired the proper stiffness. In order to accomplish this, considerable dexterity must be used at the moment the plaster is ready to be introduced into the mouth. Also it requires some discrimination, (which can be acquired only by practice,) to know when to proceed with this part of the operation. However, if the following course is pursued, there need be no difficulty here, viz.: Wet up the plaster to about the consistency of cream, and instead of making it stiff, by adding more plaster, let it stand until it can be heaped for a moment; and now, using care not to overfil the holder, no time should be lost in introducing it to its place in the mouth. The gums and every part of the mouth designed to be impressed, should be brought in contact with the paste, (the inner portion of the holder approaching first,) and bedded in it with one uniform, gentle, but firm pressure, mostly on the central portion of the holder, and in the same steady manner should it be held until the plaster is hard enough to be removed without breaking. Before the plaster has become very stiff, a small crooked instrument, prepared for the purpose, and lying near at hand, should be passed through the orifice in the plate, and piercing through the plaster to the roof

of the mouth, being sure, by some sign from the patient, that the instrument has reached thus far. Just before taking out the apparatus, the instrument should again be applied, so as to be sure that the air can be freely admitted between the plaster and the palatal arch. The best impressions cling the closest to the mouth, and after the introduction of air, may be easily removed.

Before taking an impression, the precaution should be observed to place the patient in as upright a position as convenient, and after the holder is introduced, the patient should lean forward, dropping the face downward, to prevent the plaster from running down the throat.

A napkin should be laid over the chest of the patient, and another held under the chin while the operation is being performed, to catch the saliva, or plaster, that might drop. It is advisable, in order not to produce any nervous haste, in the patient, to suggest that when all is ready you will be obliged to proceed with great promptness, in order to use the plaster before it becomes too hard.

For partial sets, to be held by atmospheric pressure, it is always essential to make a holder by swaging up a plate over a cast of the mouth. A very thin covering of plaster will be enough on the palatal surface of such a holder. In this case, the plaster should not stand long before being applied to the parts of which an impression is to be made, but used immediately after being prepared. Before removing the plate or holder, a small, sharp pointed instrument should be passed around the edges of the plate and necks of the teeth, in order to accurately trim the plaster that it may not break in removing. An atmospheric plate may be fitted for as small a number as two or three, or even one tooth that will answer a good purpose. I have succeeded with cases in this manner, that had been considered impracticable by others.

S. MALLETT.

New-Haven, November, 1854.

A Dissertation on the Diseases of the Dental Pulp and their Treatment, prepared for, and read before, THE ASSOCIATED ALUMNI OF AMERICAN DENTAL COLLEGES, at the BALTIMORE COLLEGE, March 18, 1854. By CHAPIN A. HARRIS, M. D., D. D. S.

(Continued.)

It is important, too, that he should understand the part which nature plays in the curative process, for cure here, as in the case of the cure of disease in other parts of the body, is effected by that internal force, which, as Chomel says, "presides over all the phenomena of life, contends unremittingly with physical and chemical laws, receives the impression of deleterious agents, reacts against them and effects the resolution of disease." This vital force is sometimes efficiently exercised for the cure of disease in the pulp of a tooth, but more frequently for its prevention, as is shown by the gradual ossification of the organ in those cases where it would otherwise become exposed by mechanical or spontaneous abrasion of the solid structures which enclose it, and occasionally by the formation of new dentine upon its surface at a point towards which caries is advancing. Nature, no doubt, would always provide in this way against the exposure of the pulp, if the occurrence was always preceded for a sufficient length of time to enable her to do so, by sufficient irritation or increase of vascular action in it to call her energies into operation. But the formation of new dentine, which constitutes the protective wall of defence, is a tardy process, and as a general rule, proceeds more slowly than the caries in the tooth, which causes the exposure of the pulp. Besides, it often happens that its approach is not announced by the slightest irritation, a condition necessary to the new formation, until it reaches the central cavity. At other times, the approach of the disease gives rise to too much irritation, a condition equally unfavorable to ossification of the pulp. Thus no protective covering being formed, it soon becomes exposed, when it is subjected to the action of such irritating agents as may chance to be brought in

contact with it. Hence, its liability to become the seat of chronic inflammation as well as other forms of diseased action.

If the disease be attended with pain, the removal of this should first claim attention, and this should be effected with as little delay as possible, otherwise the morbid action may extend to every part of the pulp and peridental membrane, and assume a more active and unmanageable form. If the pain is the result of irritation produced by the direct action of mechanical or chemical agents, the cavity in the tooth should at once be carefully freed from all extraneous substances and the decomposed portions of dentine. This done, a dossil of raw cotton or lint, saturated with spirits of camphor, laudanum, sulphuric ether, chloroform, creosote, or some one of the essential oils may be applied. Immediate relief is sometimes obtained by an application of this sort. Counter irritants have sometimes been used with advantage. The pain has often been removed by exciting increased secretion of saliva, but when a sialagogue is used, the cavity in the tooth should be filled with raw cotton or lint to prevent the agent from being brought in contact with the exposed surface of the pulp. But a remedy which will relieve the pain in one case often aggravates it in another.

When the irritation is produced by acidulated buccal fluids, the application of carbonate of soda, or some other alkali, will often give immediate temporary relief, but as the condition of the secretions of the mouth, especially of the salivary, is usually owing to gastric derangement, the correction of this constitutes the first and most important remedial indication. When any application is made to the pulp for the purpose of removing irritation and pain, their full effect will not be obtained unless the fluids of the mouth are excluded from the cavity of the tooth, and this may be done by closing the orifice with softened wax or mastic, using the precaution not to force it in so far as to press the application, previously introduced, upon the nerve.

Chloroform, from its powerful anæsthetic properties, is now regarded as one of the most efficient antiodontalgic agents that has ever been employed, especially in those cases where the pulp of the tooth is actually exposed. I have used it, after having dissolved gutta percha in it until it was of the consistence of molasses, with the most satisfactory results, and in two cases,

after the pulp had become the seat of chronic inflammation, with complete success—one of which I will describe.

Mrs. W——, wife of a medical gentleman residing near Baltimore, of a sanguino-bilious temperament, and about twenty-eight years of age, applied to me in the summer of 1851, for my professional aid. The second molar on the right side in the lower jaw had a large cavity in the grinding surface, which, at one point, had penetrated to the pulp. The tooth having frequently ached, I advised her to have it removed, but she could not be persuaded to submit to the operation. After removing the foreign matter and decayed dentine, the exposed surface of the pulp presented a reddish appearance, the capillaries of this part having become injected with red blood. The tooth was aching at the time, and under these circumstances, the cavity was filled with raw cotton, saturated with a thick solution of gutta percha in chloroform. The pain ceased immediately, and a few minutes after she left my office, promising to return and have the tooth extracted if it should again become painful. Two months elapsed before I saw her, and up to this time her tooth had given her no further trouble, the cotton having remained in it during the whole period of her absence, and it was with some difficulty that I succeeded in removing it, as it was firmly imbedded in the gutta percha, which had remained after the chloroform had evaporated. I now dried the cavity carefully and filled it with Hill's stopping, leaving a small space between the filling and the exposed pulp. At the expiration of about eight months, agreeably to my request, she called on me again, when I replaced the temporary filling with a permanent one of gold, having previously, however, placed a thin layer of gutta percha on the bottom of the cavity. The tooth has subsequently remained free from pain.

Until within the last three or four years, I did not believe it possible to preserve the vitality of a tooth by filling after the pulp had become the seat of chronic inflammation, but am now convinced that it can be done in very many cases, but to effect which several weeks of preparatory treatment are often required. I have succeeded in fully one-half of the cases which I have treated since the commencement of 1852, and it is probable, that when the pathology and remedial indications of the diseases of the dental pulp shall be better understood, greater relative suc-

cess may be had in the treatment of the disease in question. The practicability of restoring teeth to health and usefulness after the pulp has become the seat of pain and actual disease, has hitherto been regarded by all, as beyond the reach of the dentist's skill.

In a conversation with Dr. W. W. Codman, of Boston, in 1850, this gentleman informed me, that he had succeeded in inducing ossification of the dental pulp by removing the decomposed dentine, and keeping the cavity in the tooth filled with raw cotton. The time required to effect this, varying from eight to fifteen months, and during this period, he directs that the cotton be renewed, at least, once a day. By this simple treatment, Dr. C. assured me that he had succeeded in numerous instances in exciting ossific inflammation, and a bony covering having formed over the pulp, he filled the cavity in the tooth without fear of subsequent trouble. Whether this treatment was adopted in cases where chronic inflammation of the pulp existed, or only where this organ was in a healthy condition, I am not able to say, as I do not recollect that the subject was alluded to at the time of our conversation. Dr. W. H. Dwinelle, of Cazenovia, N. Y., recommends the use of tannate of lead and spirits of camphor, which seems to have been more successful in his hands than most other remedial agents employed for irritation or inflammation of the dental pulp. He recommends the use of friction with a view of exciting ossific inflammation, and this may sometimes be attended with a very good effect, especially, if the morbid action is dependent in part upon want of sufficient vital energy in the pulp to induce a deposit of bony matter on the exposed surface.

(To be Continued.)

For the Dental Recorder.

ALVEOLAR HEMORRHAGE.

BY S. E. SWIFT, M. D., COLCHESTER, CONN.

THE attention of the profession appears at the present frequently called to cases of protracted Alveolar Hemorrhage, and with others I have been interested in the communications which

have, from time to time, appeared in the various Medical and Dental Journals of the day, and had in preparation, for your Journal, my own views on this subject, intending to present them to the fraternity through your columns, when an interesting case occurred in a patient of mine, which proved more severe than any I had before seen.

Mrs. K.—, æt. about 25, nervo-sanguineous temperament, married—mother of one child—and a singular coincidence, by the way, her child, at the age of six months, apparently well at 3 o'clock, P. M., was taken passing a dark grumous blood, but little at a time, but of a most sickening fœtor, resembling the catamenial discharge, (the child was a male) this continued until 3 o'clock the next morning, when death ensued. Up to the period of the attack, the child had every appearance of perfect health—no autopsy. Thus much by way of digression. I will premise, however, what I afterwards learned, that my patient was subject to alveolar hemorrhage, and had I known it, I think, I could have prevented the scene that followed. The lady (Mrs. K.) called to have the teeth removed from her upper jaw, but would not submit to the operation, unless she could take chloroform; her husband being of the same mind. I gave her the chloroform, and while she was under its influence, removed sixteen teeth and fangs; she struggled violently, and swallowed considerable blood: she recovered from the effects of the chloroform very soon, and the hemorrhage having subsided, she left my office about 6 o'clock, P. M. Between 9 and 10 o'clock in the evening she sent for me. I found her supported in bed, by her friends, completely blanched, pulse small and feeble, while around her, on napkins and handkerchiefs, was blood that she had wiped from her mouth; and on the floor, in bowls, wash-bowls, and other utensils, was blood that she had vomited and spit up. She had fainted several times, and was so fearful I would hurt her, that I could scarce persuade her to permit me to examine her mouth, for the purpose of detecting the point of hemorrhage, and when, at last I did, I could only perceive the alveolar ridge of each side surmounted by bulging coagula.—Here was a beautiful case to be operated upon, by *first removing the coagula*, &c., &c.!

I did not attempt it; I moistened two pledgets of cotton with

a few drops of creosote on their surfaces, and placed them up against those portions of the alveolar ridge occupied by the molars and bicuspid—one on each side—underneath these were introduced other dry pledgets, until the jaws were slightly forced apart by their bulk. A third pledget, moistened with creosote, was then placed across the ridge in front, to cover the sockets of the incisors, and dry ones beneath. She was then directed to close her mouth, when a handkerchief was passed beneath the chin, and tied firmly on the vertex, an opening through the cotton in front, permitting her to drule. I then waited until the saliva became but slightly tinged with blood—which might have been half or three-quarters of an hour—and removed the dressings. She then permitted me to look into her mouth; the coagula was firm, and had assumed the peculiar appearance which the creosote produces, when applied to bleeding surfaces—(that of a grayish cast, through which the color of the blood is seen)—there was no oozing, but as my patient resided at a distance, I deemed it advisable to apply compresses of cotton, wet with cold vinegar and water, and dipped in a powder of burnt alum and table-salt—equal parts of each. After giving her a glass of wine, these were placed on each side, as before, filling underneath them until by closing the mouth, firm pressure could be made. The one in front was omitted, as the coagula did not protrude, and all signs of bleeding had disappeared. The handkerchief was replaced, as before, and ordered to be worn till morning. There was no return of the hemorrhage.

The hemorrhage following extraction of teeth, is, in my opinion, strictly *Alveolar*, and should so be termed and treated. We have bleeding from lancing the gums in infancy, and occasionally in adults, from a hemorrhagic or scorbutic diathesis. I have seen one alarming case following the use of the gum-lancet in dentition; it was not fatal, and never has deterred me from using the instrument—neither did it occur in my practice.

In a practice of fourteen years, I have estimated, that a case of protracted bleeding after extraction, occurs once only in every four hundred teeth extracted; this estimate I made three or four years since, and it has proved true so far. I have had ten cases, and my remedy has, in every case, been creosote; one drop of which is sufficient where the bleeding proceeds from one socket

only. In the case above cited, fifteen or twenty drops were used.

I make no claim as an originator of this treatment of alveolar hemorrhage, and very much wish I could recall the name of the gentleman who suggested its use to me. This much, from my own experience, I would say, let the remedy be used in the next case that occurs, and I believe it will prove its own worth.

To the dentist, who, from his following this branch of the profession solely, these cases occur most frequently, and the remedy is on the table of every operator in the land, try it.

In using it, I never remove the coagula, unless it occurs where but one or two teeth have been extracted; and in no case do I remove it more than a line or two below the surface of the gum, and that simply to make a sort of bed for the pledget of cotton containing the creosote; having placed this where I want it, I then cover it with compresses sufficient to—by the closing of the mouth—exert a firm and continued pressure. The coagula remaining becomes saturated with the remedy, and forms the first and most important layer of the compress, by fitting exactly, the surface of the cavity into which the bleeding vessels are discharging themselves, and pressure is sure to arrest the bleeding from wounded vessels, if so made as to command their openings.

When I know that a patient has had previous attacks of severe hemorrhage, I use the drug as a preventive, in which case it can be passed deeper into the socket, but that would be objectionable, owing to an increased extent of suppurating surface after its removal. I prefer the cavity should be as nearly full as possible of coagula.

Much valuable information, regarding the use of this drug as a hæmastatic, both external and internal, may be found in Dunglison on New Remedies.

The "Trilium Perpurium" is much used as a domestic remedy in hemorrhages—mostly from the uterus—and its fame is such as to command for it no small degree of respect as a vegetable astringent.

ON THE SPECIFIC TREATMENT OF DISEASES.

By G. A. DEWEY, M. D., OF PLATTSBURGH, N. Y.

That *every* medicine has a tendency to operate on some particular organ or tissue in preference to all others is highly probable; that many medicines exhibit this tendency in a very marked degree is already well known.

Medicinal substances seem to be endowed with a kind of *elective affinity*, by virtue of which they select from the complicated machinery of the physical organization some part or organ or system, on which their specific action is manifested rather than on any other.

Examples of the specific operations of medicines are familiar to all, a few will suffice for the purpose of illustration. Opium, Belladonna and Nux Vomica act specifically upon the brain and nervous system, and it is asserted by Flourens, that "Opium affects more particularly the cerebral lobes; Belladonna, in a limited dose, affects the tubercula quadrigemina, and in a larger dose the cerebral lobes also; and Nux Vomica the medulla oblongata."

Tart. Antimony operates specifically on the lungs; Mercury on the glands and osseous system; Secale Cornutum on the uterus and Cantharides on the urinary organs.

The local specific operation on medicines is independent of the general irritating and poisonous effects which many medicines produce in common. For example—Tart. Antimony exerts its specific action on the lungs in Pneumonia when the quantity taken is insufficient to produce its more crude and irritating effects on the stomach and intestinal canal by vomiting, purging, or even nausea.

A medicine may operate specifically on several different organs, as Belladonna on the brain, fauces and skin, yet it is probable that among the various parts with which it possesses specific relations, there is one, for which it has a greater affinity than for any other, and this *one part* is more susceptible to the action of

the medicine, and requires a smaller quantity, than any other, for the production of a philosophical or a curative effect.

A knowledge of the specific physiological action of medicinal substances is the only true guide in their therapeutical application. This knowledge is necessarily the basis of the specific healing art.

This method, says Hufeland, which acts by "attacking the internal alteration of life, which is indispensable to disease—indeed is the disease itself—and changing it into the normal state" is called the specific method. Or, in shorter and in less ambiguous terms, we may define the specific method to be the curing of diseases by remedies which *act directly* upon the diseased organs. And in this respect—the application of remedies *directly* and *solely* to the affected part—consists essentially the great advantage of the specific method over that of the ordinary plan of practice.

The progress of Medical Science and the more extended knowledge of the *Materia Medica* and Pathology, is leading the Medical Profession towards the general adoption of this method, to the exclusion of the old plan of depletion and derivation, in the treatment of inflammatory affections. And it is inflammation in some form or some grade, that we have to combat in the great majority of the maladies we are called upon to treat.

Depletion by bleeding and cathartics, and derivation by vesicants and other counter-irritants, and also by cathartics, are the principal remedial means against the local plegmasiæ.

In estimating the value of blood-letting in inflammatory affections, we have to consider its effects upon the affected organs, and upon the general system. In inflammation, there is an engorged state of the capillaries of the inflamed part, and this engorgement depends on an enfeebled condition of those vessels. Now, so far as blood-letting has the effect of relieving the overloaded and dilated capillaries, and allowing them an opportunity to recover their natural tone and contractility, thus far it may be beneficial, and no farther. But daily observation teaches us, that in many cases of acute inflammation, the relief occasioned by the bleeding is but temporary, the enfeebled capillaries not being assisted by any remedies acting directly upon them, and tending to restore their normal tone and vigor, soon become

again engorged with blood, and the symptoms which the bleeding had, for a time, relieved, are again as bad as ever.

This we often see exemplified in cases of Pneumonia and Pleurisy. A free bleeding is followed by prompt relief of the pain and dyspnœa; but this amelioration is of short duration; in a few hours all the troublesome symptoms acquire their former severity, and we must *bleed again*. And thus venesection is not frequently repeated several times, each successive bleeding tending to debilitate more and more the general system, and render it less able to resist the morbid action and the disorganization going on in the affected part. But if, in fact, the blood-letting does finally "control," as is said, the local inflammatory action, a long and tedious convalescence ensues—a convalescence rendered thus long and tedious as much by the treatment as by the original disease.

In many delicate and anæmic patients, while bleeding, seems to be required for the controlling of inflammation, it is on the other hand, as strongly contra-indicated by the already enfeebled condition of the system, and the physician finds it difficult to decide the question whether it were better to allow the local disease to take its course *uncontrolled*, or to risk the production of a dangerous, and perhaps, fatal prostration, which he fears may result from the use of the lancet.

Next in the course of common practice come purgatives.—They act by depletion—by detracting from the general circulation through the intestinal exhalents, and by derivation—by producing a determination from the inflamed organs to the intestinal canal. This is the theory—but it is doubtful in a practical point, whether the benefit produced on the seat of the disease is sufficient to compensate for the injury to parts otherwise in a state of health. The bowels, which of themselves required no medicine are attacked by cathartic drugs, irritation of their mucous membrane is produced, and general derangement of the digestive functions is the result. Constipation follows the unnatural catharsis, or perhaps, on the contrary, diarrhœa sets in, and to the original disease is added the medicinal affection in the abdomen, thereby complicating the case, and rendering recovery slower and more difficult.

Vesicants are another means of derivation, and relieve the

distended capillaries of the inflamed parts, by determining from them to the skin. But in delicate and sensitive patients, they increase greatly the nervous irritability, and in those of a cachectic habit the blistered surfaces are liable to ulceration, even gangrene has followed the artificial inflammation in cases where there was great prostration of the vital powers.

Such are the principal remedies (except a few specifics which have already crept into our practice, as Tartrate Antimony in Pneumonia) now used in the treatment of the Phlegmasiæ, and it were folly to assert, that these are all positively useless or entirely injurious, for many cures have undoubtedly been effected even by such clumsy and indirect treatment.

Could there be some mode devised, whereby local diseases might be cured by remedies which operate directly, promptly, and solely on the diseased part, without enfeebling the general system like blood-letting, and without disturbing the normal condition and functions of remote and otherwise healthy organs like the whole class of Revellents—surely it were “a consummation devoutly to be wished.” This is what the specific method proposes and accomplishes.

By this method of treatment we avoid almost entirely depletion by bleeding, and the consequent unpleasant and dangerous results which do frequently follow this practice. In those cases of local inflammation, in which the general state of debility will not admit of blood-letting, we are able to cope with the disease in a prompt and efficient manner, by means of remedies, which, while they act directly upon the diseased part, do not increase the already existing debility.

Apropos, “in the report of a certain post-mortem examination, it was said that traces of an internal inflammation had been discovered, which could not be controlled, in consequence of the feeble condition of the patient preventing a sufficient abstraction of blood. The Doctors ought rather to have stated the case thus:—We, who do not understand the better method of curing inflammatory diseases without the lancet, have been unable to save this patient’s life.” ■

By the specific method we avoid the creating of artificial diseases in healthy parts, diseases which, in their turn, frequently require remedial treatment, and which, at least, retard the process of recovery.

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When a disease is cured by this method, health is at once restored, and the patient does not have a host of medicinal affections to recover from by the *vis medicatrix naturæ*, or to be subjected to further treatment, as is the case many times in practice.

There is another great advantage in the use of specific remedies, it is this—a comparatively very small quantity of any medicine is sufficient to produce a curative effect when administered with reference to its specific relations. Thus very minute doses of Tart. Antimony are efficacious in Pnenmonia, and I have seen the fractional part of a drop of Tinct. of Secale arrest promptly a profuse Menorrhagia.

An article like this is necessarily too limited for the consideration of all the comparative advantages of the specific healing Art, or for mentioning even the names of medicines in connection with those diseases, for which they have a specific applicability, and if the Author only succeeds in directing the attention of a few of his professional brethren to this important subject, the object of this communication will be fully attained.

From the Boston Medical and Surgical Journal.

QUINIC ETHER.

A discovery which has lately been made in Italy, and which has excited much attention, is illustrative of the results of perseverance and industry.

In the month of June, 1852, a young man, M. Louis Manetti, a student of the University of Pavia, happened to witness the death of a patient with congestive fever, who died apparently from the impossibility of introducing into the system, in a short time, a sufficient quantity of quinine.

Manetti was struck with the idea that the principle of the bark might be effectually administered through the medium of pulmonary absorption. Encouraged by Professor Pignacca, Menetti began a series of investigations, the results of which are detailed in a letter from Prof. Pignacca to Dr. Stambio, of Milan, a translation of which is found in the "*Annales de la Société Médicale de Grand*."

Professor Pignacca has called the new agent for inhalation, *Quinic Ether*, probably for want of a better name, for it is not, properly speaking, an ether, and its positive chemical composition is not known. It is a liquid of a special inconstant odor, and is obtained by the distillation of quinate of lime (*quinatè de chaux*) combined with alcohol; and is analogous to the etherial bodies in general, volatilizing like them.

Professor Pignacca states in his letter that he has administered this fluid by inhalation to eight patients; seven of them had tertian intermittent fever, the last neuralgia of the fifth pair. The neuralgia was of an intermittent type. The remedy acted admirably, both in the cases of fever and in the case of neuralgia.

The quantity of the agent given is about a scruple at a time, repeated three or four times a day. It is administered in the same manner as chloroform, and it produces sensations somewhat similar.—*N. O. Medical News and Hospital Gaz.*

From the Dental Register of the West.

METHOD OF DIRECTING SECOND DENTITION.

BY JAMES TAYLOR, M.D., D. D. S.

IN our last we promised to continue this subject and give cases illustrating practice; we then condemned the practice of extracting the lateral incisors of the deciduous set to give room for the central incisors of the permanent. The extraction of the deciduous cuspid to give room for the permanent lateral is seldom, if ever, advisable. This practice is the cause of the numerous *tusks* which adorn the mouths of so many. It will be asked how then shall these teeth get room when they are coming in perfectly out of place—crowded and twisted? We answer that patience and faith in the natural operations of the economy will be generally sufficient, yet a misdirected tooth can be much relieved by proper pressure made in almost any manner by the parent or child itself, this pressure may be made with the parent's fingers, and repeated daily; or, if an upper tooth is pointing inward, and if left alone will strike inside of the inferior

teeth, a small stick of wood placed on the under teeth projecting just far enough in the mouth, so that when the teeth are brought together the end of it may press on the inner or palatal edge of the upper tooth, this when bitten upon presses the upper tooth out to its place, and where the points do not strike on the occlusion of the teeth, will, if persevered in, often put in proper place the displaced tooth, and thus prevent the after necessity for a mechanical fixture for that purpose.

It should be borne in mind that a majority of teeth—I mean the front teeth—appear much out of place, and as if they would be very irregular when they first make their appearance, and yet as the jaws expand and the teeth protrude, they acquire room and take the right position. The solicitude of the parent, and the apparent irregularity observable by the Dentist, often urge something to be done, when *let alone* is all that is necessary.

Decay most usually takes place in the molars of the deciduous set, and thus one or more of these teeth are often lost by the time the incisors of the permanent set make their appearance. When this is the case, we find the crowded condition of the incisors is much sooner relieved, and thus that practice most in accordance with the condition and development of the teeth is pointed out. For, if any teeth are removed to give room, they should be back of the cuspids; and, besides, the organs of displacement here are smaller than the deciduous ones; and even should it occasion a crowded condition of the teeth at this part of the denture, is not so observable, and the loss of a tooth to remedy irregularity here, would not mar the beauty of the denture. We would not, however, advise the injudicious extraction of even any of these teeth to relieve a crowded condition of the incisors, unless the crown of the tooth was well protruded, and it was absolutely certain they could make room for themselves.—It may be asked, which one of these teeth (the deciduous molars) would we remove? If the teeth are all sound, we should first see if either was being loosened, and if so, indicating its early loss, we should remove it. If all circumstances of this kind were absent, we should extract the first.

(*To be Continued.*)

OUR BOOK TABLE.

HARRIS' DICTIONARY OF MEDICINE AND DENTAL SURGERY. By CHAPIN A. HARRIS. Second edition, carefully revised and enlarged. Lindsay & Blakiston, Philadelphia, Publishers.

We are doubly pleased to notice the appearance of this book. First, Because it is a useful and valuable work, and at the present time particularly needed by the profession. And 2ndly, Because it has gone through *revision* and *alteration*.

The first edition of this work contained enormities that would have ruined its popularity had it been from the pen of any author of less repute. The biographic and bibliographic notices contained therein were sufficient to have periled the reputation of any book or author. Men who had never written (and perhaps never read) a line relative to Dental Science or any other science, who had never accomplished any work of importance, who had, in fact, never been heard of beyond the limits of the town, village, hamlet or "diggins," where they slumbered away their useless lives were considered worthy of the same notice that was bestowed upon Hunter, — Hunter, who spent his life in the pursuit and study of anatomical and physiological science, and who, at his death, left the accumulated results of a life time of toil and labor for the instruction and benefit of future generations. Goodsir is passed over in silence, his name is not to be found in the work, *except where extensive extracts* have been made from *his writings*. Thomas Bell is considered worthy of scarcely more remark than is bestowed upon "bell metal." And yet the instances of extravagant praise for "immense littleness" are sufficiently numerous to excite both derision and wonder. One of these is now before us, in which the author, after indulging in a column and a half of adoration, for which no reason can be assigned, naively adds, "that although a good writer, he contributed nothing to the literature of Dental Surgery, except an *essay on the importance* of the teeth, &c. We will venture to say, that had this gentleman known how cheaply he was winning "imperishable fame," he would have blushed himself into an apoplexy, and thus have met with a fate at one extremity, which as it was, he realized at the other, for we are further informed, by our author, that this stupendous career was brought to an early close, in consequence of the gentleman falling a "victim to hemorrhoids and calculus concretions of the gall duct."

Another is mentioned as the "*author of a description of Anchylosis of three teeth*." Another as "author of a report on a case of *Fungus*," — rather remarkable stepping-stone to fame, that!!

We are astonished at the number of those who wrote "Dissertations on Tooth-Ache," "Dissertations on Artificial Teeth," "Dissertations on Porcelain Teeth," and dissertations on nothing at all; but we are still more astonished at the elaborate eulogies bestowed upon many of these literary lilliputians. However the first edition was the first of its *kind*, it answered a good purpose and sold well.

From the present edition all biographical and bibliographical nonsense has been expunged, and the great vacancy thus made filled with really valuable matter. The book is actually what it pretends to be, viz: a Dictionary of Medical Terminology and Dental Science. To the Student it is indispensable, and certainly no practicing dentist should be without it.

To the library of the physician it will prove a most valuable addition. There exists, in the medical profession, a remarkable and deplorable ignorance concerning the specialty of Dental Surgery. We have frequently heard medical men complain of the difficulty of obtaining information upon any one subject appertaining to Dental Science, without having to wade through page after page of matter, foreign to the purpose, and often flat, stale and unprofitable, to a degree never approached by any, save dental literature manufacturers. To such "anxious inquirers after the truth," we would earnestly recommend the book. It contains all the requisites of a first class Medical Dictionary; as well as a full and much needed supply of reliable information relative to Dental Surgery, so arranged as to be got at with a greatly desired but hitherto unattainable economy of toil, time, temper and tin. We understand that the retail price of the book has been reduced ten per cent.—We consider that the revision has certainly doubled its value and perhaps more.

C. W. B.

THE DENTAL REGISTER OF THE WEST,—Edited by DR. JAMES TAYLOR,

Commenced its eighth volume with the October number. Invigorated by the "onward and progressive spirit of Dental Science" the editor feels that "the current bears us onward, and we have no thought of standing still and let the car of Young America run over us." He addresses a few words to Eastern brethren, — "We would say, that the Profession in the West possesses much of the spirit of Young America, and although not first in starting Dental Periodicals and Colleges, yet we are trying to do our duty in this way, and if not first in the latter, we claim to be first in the erection of a Temple exclusively for the benefit of Dental Science. That you may be better acquainted with the West, and know something of its unparalleled growth, and as we believe, future power and wealth, we shall send you the Register and hope that many who may not get it, will order it, in this way we shall make your acquaintance, hoping e'er long that the "iron horse" will bring us in close unison, when we shall welcome you in the Queen of Cities."

THE AMERICAN JOURNAL OF DENTAL SCIENCE

Will enter on its fifth volume, with the issue for January, 1855, and will hereafter be published on the first days of January, April, July and October. Messrs. Lindsay & Blakiston, of Philadelphia, are the publishers.

THE DENTAL NEWS LETTER, volume 8, No. 1, for October, is received.

Also, Nelson's American Lancet; The Philadelphia Medical Journal; The New Hampshire Journal of Medicine; The Ohio Medical and Surgical Journal; The Southern Journal of Medical and Physical Sciences; The Boston Medical and Surgical Journal, and The Zahnarzt, edited by Dr. Schmedicke, of Berlin.

And now a few words about our own RECORDER. With the next issue we bring volume VIII to a close, and with that number will be sent our Prospectus for the ensuing year. Under the able Editorial management which has been engaged, we hope to place our Journal in a position, as regards interest and value to the Profession, which will acknowledge no superior. Its advantage in being a *monthly*, gives it additional claims to patronage, as it enables its readers, thereby, to become possessed of all current and local information, at the earliest possible moment. We hope our subscribers will allow it to be a *paying* Journal; from past experience, we find, more than ever, the absolute necessity of adhering to the "payment in advance" principle, as we now have on our books a goodly number who have been receiving the work for ten months past,—each number having the terms plainly printed thereon, and yet they deny us the pleasure of signing a receipt for them, for the \$2.00 due. Shall Dental literature receive no better encouragement than this? Who is to support Dental Periodicals if Dentists themselves do not? And by supporting them, we mean not only taking but *paying* for them and making it an object for the Editors to use exertion, in obtaining the very best of matter, in the way of contributions and selections.

A good opportunity now offers for such as are in arrears to forward in one enclosure, their subscription for both this volume and the next. For the purpose of reminding such of their indebtedness, the next number, which will contain the title page, index, &c. will be withheld until the receipt of the amount due us.

PUT OFF AGAIN. — We learn that the suit brought by Dr. Allen against Dr. Wm. M. Hunter, the eminent dentist, of this city, has again been deferred until the next term of the United States District Court, at Columbus, which meets in April next. The suit was in relation to an improvement in artificial teeth, made by Dr. Hunter, which was exhibited at the World's Fair in London. The Doctor's opponents (Allen & Co.) not being ready for trial, begged for a continuance, which was granted by Judge McLean, on application of the plaintiff's counsel. — *Cincinnati paper*, October 29.

Since the above was put in type we have seen Dr. Allen, who states the above report is *not official* but was written in Dr. Hunter's office, as the report of Dr. G. W. Kendall, who is engaged with Dr. Hunter in business. We shall publish the official report in our next number.

OHIO COLLEGE OF DENTAL SURGERY. — Our Western friends are certainly making rapid strides. The erection of an edifice devoted entirely to College purposes, is a gratifying mark of progress. Such ample facilities in the way of Dissecting Rooms, Laboratory, Library and Museum, leave little else to be desired by the Student in Dental Surgery. For Officers, &c. See Advertisement.

New-York Dental Recorder;

DEVOTED TO THE THEORY AND PRACTICE OF

Surgical, Medical and Mechanical Dentistry.

Vol. VIII.] DECEMBER, 1854. [No. 12.

From the Dental Register of the West.

METHOD OF DIRECTING SECOND DENTITION.

BY JAMES TAYLOR, M. D., D. D. S.

(*Concluded.*)

As before remarked, we believe in letting this operation of the economy go on in its most natural manner, and hence extract as few of the deciduous teeth as possible, until they have been loosened or are in the way of the permanent ones which are to fill their places.

Children are very often brought into our office troubled with more or less pain in their molar teeth. If we find the front teeth are making sufficient room for themselves and the pain can be quieted by the application of some innocent preparation such as Oil Cloves and Sulph. Ether, equal parts, or two parts Ether and one of Oil Cloves, then add as much Gum Camphor as they will dissolve. A drop of this on a little cotton applied to the aching tooth generally relieves. If, however, the incisors have not room, and these teeth are troublesome, we select the one which appears to be most affected and extract it, and if we should have to take out one on either side, we should feel that we were benefitting our patient, not merely in the present relief of pain, but in the arrangement of the permanent denture.

That practice which merely takes cognizance of one or two palpable difficulties, having no reference to collateral effects which must flow from it, is not much, if any, short of quackery.

There is no part of the Dental practice requiring so profound a knowledge of the operations of the economy as that which

relates to the eruption of the permanent teeth ; a mere superficial observer will be constantly led astray, inflicting at almost every step far more injury than benefit. We are satisfied that our oldest and best practitioners are led by constant observation to feel that it is perhaps better not to do enough than too much. We are also satisfied that while there is no part of Dental practice which requires more skill and experience, there is also no part more trying to the feelings of the humane operator. It is only a sense of duty which would induce us to inflict pain, yet we should feel that duty is inexorable, and demands decided action. A firm and decided course is not inconsistent with great tenderness ; and we are satisfied that the child will sooner, and with far less trouble, yield to the proper treatment by a kind manner which swerves not from the path of duty, than from any other. Children should not be deceived, and the disposition we so often see in parents to induce a compliance in their children to submit to have a tooth or two extracted, by telling them it will not hurt, should be properly reprov'd ; get the child's confidence by telling the truth, and future trouble is nearly at an end.

The first and most common irregularity of the teeth which demands special treatment to remedy, is the front or lateral incisors, one or more striking inside of the lower teeth at every occlusion of the jaws.

This is not only the most frequent irregularity which presents itself, but it is also one of the most easy to relieve. This condition of the teeth can be very often prevented by the use of the stick, or pressure made by the parent, repeated very often every day, before the tooth has so far protruded through the gum as to really strike the lower teeth. When, however, this is the case, every occlusion of the mouth would tend to keep up the irregularity. The object now is to alter this unnatural strike of the teeth, and so long as the other teeth are permitted to come together, this cannot be accomplished.

The most simple and effective contrivance to remedy this defect is a cap for three or four of the under teeth. This we obtain by first taking an impression of these teeth in wax, then secure a plaster model, and next a metallic one, we then take a soft and good piece of gold plate, about the thickness of that used for upper plates for full sets. This is struck up to neatly fit these teeth,

we then punch two holes opposite two of these teeth, each on the palatal part of this plate, then notch the plate on the labial part. The plate is then adjusted to fit the teeth, and next an inclined plane is soldered to this gold cap; this inclined plane is so attached that when the cap is set on the lower teeth and the mouth closed, the inclined plane strikes the palatal face of the upper tooth or teeth that incline too much in.

It is now ready for fastening on, and this is effected by passing two thread ligatures through the holes punched on the palatal portion of the plate or cap. It is now ready for adjusting to the teeth, and the ligatures are passed between the teeth, so that each ligature shall pass around or between the teeth, and the cap forced on the teeth. The ends of the ligatures are then tied over the notched plate on the labial face of the teeth, and thus secure the fixture to its place. This cap and inclined plane keeps the teeth apart, and at every occlusion of the teeth, the inclined plane strikes the palatal face of the irregular teeth, or tooth, and forces it out to its proper place. If the adjoining teeth overlap the misdirected teeth, we pass a doubled waxed thread between the teeth and under the irregular teeth, and over the overlapping teeth, and tie it fast. This ligature keeps up a tension on the irregular tooth, drawing it out to its place, and at the same time makes room for its position in the arch, by wedging, as it were, the overlapping teeth apart, acting indeed just as wedges on either side. Should this ligature be disposed to slip too high up on the neck of the teeth, it may be tied down by another ligature passed between the teeth and tied with the knot at the cutting and approximal edges of the teeth, or by the adjustment of one or more small gold hooks applied to the incisor. These hooks are bent over the points of the teeth and the upper end either notched or bent out to catch and hold the ligature.

These fixtures are all that is generally necessary to put into place teeth of this character. And when this has been worn until the teeth strike fairly on the outer edge of the lower teeth, it can be removed, for then the continued closing of the teeth together will of itself soon finish the operation.

We have had a few cases in advanced life, where we have resorted to the following contrivance: Make a stiff and flattened bar of gold to fit the labial face of the incisors and canine teeth,

standing off from the tooth which is within the arch. We solder two hooks to this bar which catch over the points of two of the incisors, and keep the bar off from the gums. We then pass a ligature around the neck of the irregular tooth and tie it fast to the bar. This very soon draws the tooth to its proper place.

Should the irregular tooth strike inside of the under teeth, a cap with an inclined plane attached, would still be necessary to hold the teeth apart, so that the tooth can pass out in its proper place in the circle. We have now given the most simple cases of marked irregularity, requiring mechanical fixtures for regulation, and as we regard, the most simple means that can be used for remedying the irregularity. We do not pretend that there is anything new in principle about the plan of treatment here laid down. The principle is the same as that recommended by Catalan and others, and the inclined plane the same, substituting, however, a mere cap of gold to three or four teeth, when but one tooth or two are to be acted upon, for the extended gold bar.—Our plan is indeed more like that recommended by Prof. Harris, only we do not think it necessary that our cap shall encase so many teeth. We are in the habit of applying this fixture very early in life, earlier indeed than any other mechanical contrivance we can use. For so soon as the inferior incisors of the permanent set are in place or fully developed through the gum, the cap can be attached to them, and this indeed is the period of life when most frequently called on to use this appliance. For they are not more than fairly through and perfectly developed before the upper ones are making their way into a proper articulation, and should this articulation be wrong, every additional tooth obtained renders the difficulty more and more serious.

There are many cases of irregularity. Where the teeth, especially in the upper jaw, are overlapping each other, and present a very ugly appearance, when the ligatures, as applied by Delabarre, is all that is sufficient, and unless some of the teeth strike inside of the under ones, no other appliance is necessary to accomplish the object in view. We give the following case as illustrative of this :

The two central incisors are prominent and project. The lateral incisors are overlapped by the central and cuspidati, so that about one-half of the laterals are in view. The first bicus-

pids are within the proper circle. All the teeth of the permanent set are through, and yet none really strike inside of the lower teeth, and yet the cusps of the lower and upper teeth do not properly articulate, but glance on their points and do not pass into their appropriate depressions. Now we regard the careful observation of this point as of great consequence, and one that should be kept constantly in view in all our appliances for regulating deformity.

The case we have referred to, was one that had withstood all the efforts of an old practioner for more than a year, and indeed had passed through two hands. The extraction of the first bicuspid was at length advised, and even the separating of the front and lateral incisors. To avoid this, we were called on, and after a thorough examination of the case, and measurement of the circle in which the teeth should stand, we saw that all the space necessary, could be thus obtained. The individual was in his eighteenth year of age—teeth all sound—our ligatures throughout the entire case were strong patent thread made double and waxed. This was passed first between the anterior and posterior molars, and brought forward around the anterior molar, and secured with a knot, then brought forward over the posterior bicuspid, then both ends passed between the bicuspids, and carried around the lingual neck of the anterior bicuspid which stood too far in. Then between this tooth and the cuspid, then over the labial neck of this tooth, and then between this and the lateral incisor, which was also too far in, and around the lingual neck of this, and between this and the front incisor. The same operation was gone through with on the other side. Thus the two ligatures used met at the front incisor teeth, and after being drawn tight, were tied over the labial face of these teeth. It will be observed, that the thread which passed between the teeth, was in four strands, making what answered as a good wedge for these teeth, for we took good care to tie it down on the crowns of the teeth by a double ligature passed between the teeth and above the main ligatures, and tied at the points of the teeth. This, at first, was an easy matter, as the teeth were so close that the knot would not slip up or allow the main ligature to do so. Towards the close of the operation we secured it down by hooks, eaching over the points of two or three teeth. In this

plan we have the traction exerted at the same time that the wedges are making room, and in some four or five weeks the teeth all came into their proper place, and were secured by single ligatures loosely applied until they became firmly fixed by the adaptation of the alveolus around them.

We would here remark, for the information of the young practitioner, that for the first two or three days, all appliances which require much force exerted to bring the teeth in place, produce some considerable soreness of the teeth, but after this period is passed, the soreness is less, although the teeth often appear somewhat loose. Care should, however, be taken, not to apply the fixture so tight as to produce inflammation in the alveolo-dental membranes. We sometimes merely retain the position gained for a few days, until all soreness has left, and then tighten the ligatures again. The ligatures and fixtures should be taken off every two or three days, and before re-applying, the teeth carefully cleaned, using daily, some good astringent wash to keep down irritation of the *gums*. The same treatment here recommended, it will be seen, is applicable in either the upper or lower jaw, when the teeth in their irregularity do not really articulate adversely.

Before closing this article for the present number of the Register, we will give our method of bringing into place an oblique upper incisor. It will be seen that it differs but very little from that recommended by Dr. Evans, of Paris, or that which he recommends for cases not refractory. The general plan, we believe, is the same as is generally pursued by the profession, only differing a little in detail.

After having acquired space by wedging the contiguous teeth apart, to get room, we adjust a band of gold, made of 22 carat plate, around the crown of the oblique tooth. This band should be adjusted as near the gum as possible, yet embracing the crown so as to retain its position. After it has been well adapted to the tooth, so that it will not slide or turn on the tooth, the ends should be soldered together. We then take a bar or wire of 18 carat gold, and long enough to reach from this tooth back to the molars. We then solder one end of this to the band, at a point where the lingual face of the teeth should be, and at an angle throwing the bar from the teeth. The bar is now hammered and

burnished, to give it elasticity. It is then adjusted to the tooth and the bar drawn to the molar tooth, and fastened by a ligature. The bar can be at all times so bent with a pair of pliers, as to give merely the amount of traction desired. If necessary, as the tooth turns, the bar may be cut off, and re-soldered.

We had intended giving in this number, a few cases of irregularity, relieved by a bar and ligatures, but the wood cuts are not ready. They will be ready in the next.

USE OF ANÆSTHETIC AGENTS.

TRANSLATED FROM "DER ZAHNARZT," BERLIN, FOR THE RECORDER, BY DR. J. KAMMERER.

Report of Dental Operations performed for the paupers of Vienna, by Dr. Weiger, Dentist.

In the course of 1853, were performed—

Extractions of teeth, under the influence of ether,	-	5534
“ “ “ without ether,	- -	411

Excisions of crowns of teeth, and the nerves killed,		
	with ether,	1317
“ “ “	without ether,	42

Unsuccessful operations,	- -	with ether,	732
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Removal of spongy excrescences, in the mouth,		
	with ether,	93
“ “ “	without ether,	4

Operations in the presence of considerable inflammation,	- - - -	with ether,	719
“ “ “	“ “	without ether,	52

The sum of the operations performed during the year, consequently amounted to 8395 with ether, and to 509 without it.

The number of dental operations performed by Dr. W. in his public institution, from 1847 to 1853, amounted to - 57,550

The numerous operations performed by this gentleman, on private patients, not being entered on the list of the institution,

it was impossible to state their exact number. Notwithstanding the numerous instances in which Dr. W. makes use of an anæsthetic agent, (as seen in the above,) not an accident has ever occurred in his practice, and in consequence, Dr. Hassinger, the head physician of the Military Hospital at Vienna, has received orders to introduce Dr. Weiger's method into all the Hospitals of the Austrian army.

Dr. Morris Blau, at Prague, a former assistant of Dr. Weiger, at Vienna, perfectly familiar with the mode of administering narcotic vapors, as practised by Dr. W., states that, from February, 1847, to March, 1854, he performed upwards of 6300 operations with ether, according to the precepts of Dr. W., and without ever having seen a case to terminate fatally. Dr. Blau makes use of Dr. Weiger's inhalation bladders. They are about 18 inches long, and 29 inches in circumference; to the aperture of the bladder an oblong, funnel-shaped mask of gutta percha is adapted, which completely encloses the mouth and nose of the patient. At the middle of the bladder is a circular opening, to be closed with a cork. The bladder being filled with air, the well-fitting mask is applied to the mouth and nose of the patient, and the fluid is then poured into the bladder by the opening, and the cork inserted. The narcotic fluid is composed of one part chloroform to from ten to twelve parts of sulphuric ether.

Dr. Blau attaches great importance to the presence of air between the mouth of the patient and the evaporating fluid, as also to the close adaptation of the mask to the face of the patient.—On bright days a less quantity of chloroform is administered, than on days when the atmosphere is charged with vapor. The space of time required to produce insensibility, varied from two to ten minutes. Cases were observed of persons who were insensible, without being deprived of consciousness.

The persons thus rendered insensible, were individuals of every age, (from children less than five years old, to persons far advanced in years,) and of both sexes, (females pregnant from one to nine months, and mothers nursing their babes,) and persons of all classes of society. A great number of persons were narcotized three, five, and even eight times, at different periods, so that opportunity was given to see them several years afterwards. No evil consequences were ever observed.

The use of anæsthetics has been condemned in cases of consumptive and apoplectic appearance, tubercles and organic diseases of the heart, weakly, nervous, and insane persons. Dr. Blau thinks this rule cannot stand the test, and enumerates from his diary, a number of cases as proofs to the contrary.

From the New York Medical Gazette.

TREATMENT OF ALVEOLAR ABSCESS.

BY CHARLES W. BALLARD, M. D., D. D. S.

(Concluded.)

At the appointed time I found, upon examination, that all traces of creosote had disappeared, and that the former trouble remained in a greatly reduced degree. I recommenced the treatment with creosote, and after another respite of a week (the tooth meanwhile being filled with floss silk only,) I found that there was but a slight trace of creosote, and none at all of the peculiar odor which had been the cause of so much annoyance. A few days after this, I filled both crown and fang with gold, and in two weeks from that time, without any further treatment, the abscess had entirely disappeared. The success was certainly encouraging, and after repeating the experiment, in a number of instances with a like result, I was induced to adopt a similar mode of treatment for all cases of alveolar abscess to which it could be applied, occasionally making slight modifications to suit individual peculiarities.

My usual method of operating at present is as follows: After carefully removing all decay (if any exists) from the external cavity, I cut directly into the nerve cavity, making as large an opening as is necessary for convenience; then with suitable instruments, remove the decomposed matter from the canal, together with the discolored bone which, in many instances, is found at the most depending portion of the pulp cavity. In some cases, however, of long standing, particularly where the teeth are soft and delicate, to remove all this discolored portion would render the crown of the tooth so weak, as to endanger it, an al-

lowance must be made for these cases. It is also important that the softened dentine, found near the apex of the fang, should be removed. This done, the canal must be washed throughout its whole extent with pure water, using for this purpose a small but powerful syringe, having the tube so bent as to allow of its introduction in the nerve cavity. The cavity should then be dried by filling to the apex of fang, or fangs, with floss silk, taking as fine a strand for each fang as can be successfully managed with the instrument, and leaving, for convenience of removal, a portion of each strand protruding from the cavity to the length of an inch or more. This done, I slightly moisten some strands of the silk with creosote, and then removing the first strands, I immediately refill with the latter, and then close the external opening with wax. The amount of creosote required, and the length of time I allow it to remain, depends much upon the time it has existed and the amount of decomposition to be overcome, but more upon the effect produced by the remedial agent itself, some of the apparently worst cases having been quickly cured, while others comparatively simple, have required a course of treatment that has extended over weeks.

I usually examine these cases every twenty or forty-eight hours, renewing the floss silk *with creosote*, if it seems necessary, and without it when the first application seems to have been effectual. If after discontinuing the creosote for twenty four or forty-eight hours, no trace of the odor of decomposition can be detected, I fill the fangs at once to the apex with gold, leaving the crown to be filled at a subsequent period. I make this delay in completing the operation with the view of avoiding the danger of periosteal inflammation, which might be the result of too much pressure at so critical a juncture.

In many recent cases of abscess it is only necessary to make one application of creosote, allowing it to remain twenty-four hours. In some cases, however, I have been obliged to renew it ten or twelve times.

The discharge usually ceases before the creosote has had its full effect. I have known it to cease, and after the removal of the creosote and the substitution of the dry floss to recommence. Of course the creosote should be renewed under these circumstances.

After the dry floss has remained unchanged in the tooth for

twenty-four hours, and without any unpromising symptoms having been noticed, I usually consider it safe to fill the nerve canal with gold, though where I have had trouble, or expect it, I frequently wait a day or two, sometimes a week or even more, being careful to keep the cavity well filled with dry floss and closely sealed with wax.

The external opening of the abscess does not disappear until from one to four weeks after the operation of filling with gold has been performed. I have been obliged, in some very obstinate cases, to lay the abscess open, and to apply alternately creosote and nitrate of silver.

Once I had reason to believe that periosteal inflammation had been excited by an excess of creosote, some of it having probably been forced through the foramen while packing in the floss which had been wet with it; the soreness resulting remained for a long time, but finally disappeared, and the operation was finished without any serious consequences.

Of course there are numerous cases of abscess which are beyond the reach of this remedy. Among these cases may be enumerated, abscess resulting from secondary hemorrhage, following the extirpation of the nervous pulp, and occurring after the canal has been filled with gold. The impossibility of removing the gold, puts these cases beyond the reach of the remedy in question, and the only chance will be in the use of nitrate of silver and creosote applied externally. Fortunately accidents of this nature will seldom occur, provided sufficient precautions are taken previous to filling the roots.

Abscess occurring from periosteal inflammation, caused by external violence, is also beyond the reach of this remedy, particularly if accompanied by fracture of the alveolus. In these cases, the removal of the tooth and the fractured bone is usually necessary. Sometimes external violence may cause the death of the nerve, without serious injury to the socket or its lining membrane; when this occurs, and an abscess is formed, it can be successfully treated by the method described.

There is a diseased condition of the second and third inferior molars, which would result in abscess, were it not for the exceedingly dense structure of the bone in which these teeth are situated. The cause may be the same as those described above, but

it results usually in a thickening of the periostium, and in a deposit of bone in the socket of the tooth, commencing at the bottom of the socket, if the tooth has no antagonist, or laterally and more externally if it has. In the last case it can be noticed in the form of a hard broad tumor, with a base often greater than the width of the tooth. It is to be detected by passing the finger over the buccal surface of the jaw, at a point about one-third the length of the fang above its apex.

The above method of treatment would be successful in these cases previous to the formation of the tumor, but after it has once formed the extraction of the tooth becomes necessary, after which the disease gradually disappears.

As for the general success of this mode of treating alveolar abscess, I can only say that thus far, (nearly four years having elapsed since I commenced it) the failures to cure abscess connected with the teeth of the upper jaw do not amount to five per cent. of the number treated. In the lower jaw I meet with more difficulty, and the failures are more frequent; recent cases, however, are almost invariably cured. In fact, a newly-formed abscess in either jaw may be considered a very tractable malady when this remedy can be applied. An abscess of long standing frequently is productive of serious injury to the socket and lining membrane of the tooth. The difficulty is also increased where there are a number of abscesses in the same jaw, particularly if they are connected with adjoining teeth; still I have succeeded in effecting a cure where there have been two, three, and in one case six abscesses adjoining.

New-York, 139 Fourth Avenue.

Extract from a Report, published in the American Journal of Dental Science, upon the Rise, Progress and Prospects of Mechanical Dentistry. By M. D. FRENCH, D. D. S.

BLOCK TEETH.—In no branch of our profession has the march of improvement been more rapid than in the manufacture and insertion of block teeth, and the fact of their general use by the

best dentists sufficiently attests the high estimation in which they are almost universally held, and fully justifies the statement that they can be put up in a manner, which for beauty and utility is superior to any other style, the merits of which has been tested by experience. They are adapted to all cases where teeth with gums are required.

They must be manufactured to suit the particular case in which they are to be used, hence it is important that every dentist should make them for his own use, and if he is not able to carve and mount them himself, he should at least have sufficient knowledge of the art to enable him to superintend and direct others in the operation.

The limits of this article render it impossible for me to give any adequate description of the process gone through in the manufacture of these teeth. I shall, therefore, refrain from any attempt to do so, and proceed to notice the different methods of attaching them to the plates.

That most frequently adopted, and which is by a majority of dentists believed to be the best, consists in securing the blocks to the plate by the use of standards attached to the palatine surface of the blocks, by means of platina pins put in the blocks before they are biscuited, and soldered to the plate.

The backings may be disconnected the same as when single teeth are used; or form one continuous band on the inner surface of the blocks. A continuous band gives the nicest finish, and it affords less opportunity for the lodgment of extraneous matter than the separate standards, it is probably the better of the two. The beauty and durability of the piece will be greatly enhanced by putting a *rim of gold around their outer surface*.

Another plan which is sometimes employed, is to solder pins on the plate, to correspond to the verticle holes made through the teeth, and the blocks fastened by riveting the pins on the grinding surface of the molars and bicuspid, and on the labial surface of the cuspidati and incisors.

The last method I have to notice is, that of attaching the blocks to the metallic base, by setting them either in gutta percha, or what is better, a cement composed of equal parts of sulphur and fine feldspar upon pins, soldered to the plate, to correspond to the vertical holes in the blocks. The blocks should be

accurately fitted to the plate and to each other, and after the pins have been soldered on a strip of gold, about one-half the thickness of the plate, and one-eighth of an inch in width, should be fitted and soldered to the plate, so as to form a continuous band around the base of the blocks. Notwithstanding the discredit into which this plan has fallen, I have no hesitation in expressing the belief, that in all cases where the length of the teeth will admit of the use of pins one-eighth of an inch in length, it is the very best that can be employed.

I am aware, that in this, I am giving expression to an opinion conflicting with that entertained by a large majority of dentists, but the results of my own experience have satisfied me, that the objection urged against teeth mounted in this way, that they do not possess sufficient strength and durability, is entirely groundless. That such has been the experience of many is true, but in a vast majority of cases, the fault was in making, and not in the principle.

Many, and indeed, almost every one who has ever adopted this method, have overlooked the importance of the band around the base of the blocks, either as a support to them, or as a protection to the gutta percha from the action of the fluids of the mouth, and have inserted the teeth without it, and because, in the course of a few months, or even weeks, they had the mortification to see the adhesive property destroyed by chemical action and the teeth come off, a result that scarcely needed experience to teach, would be the inevitable consequence of such a practice, they at once abandoned it as inefficient and worthless, whereas, if the band had been used, and the blocks set in a mineral cement, a degree of strength would have been given them quite equal to those mounted with pins and backings. When this method is employed, any springing that may occur in the plate during the process of soldering on the pins and band, can be easily remedied before the teeth are set upon it, by binding the plate with fine wire on the plaster model, and heating it to a red heat while in this position, and thus preserving the original adaptation of the plate to the mouth; but if in soldering on the blocks, the plate should undergo any change in conformation, and its liability to do so is much greater than in the other case, by reason of the unequal expansion by heat of the porcelain and

metal, it is exceedingly difficult to restore it to its original shape, and it not unfrequently happens, that the best directed efforts fail to accomplish it, and a partial or total loss of suction is the consequence. Another important advantage which teeth mounted in this manner has, is the facility with which the loss of one or two of the blocks can be replaced without injury to the remaining block or blocks, as the case may be. In order to do this, however, it is necessary that the model on which the original teeth were carved should be preserved.

SURVEY OF THE PROGRESS OF DENTAL SURGERY.

An Extract from an Article, by the Dental Editor, Dr. B. Wood, of the Southern Journal of the Medical and Physical Sciences.

One of the most prominent subjects that continues to engage the mind of the profession, relates to the method of treating dental caries, complicated with exposure of the dental pulp. The plan of drilling into the nerve cavity in such cases, proposed by Dr. Hullihen, of Virginia, and also Dr. Miller, of Massachusetts, which was set forth in full in our first volume, elicited much attention during the past year. It appears to have proved remarkably successful in the hands of most of those who have published the results of their experiments. Others, however, were not so successful, and latterly strong objections have been urged to this mode of treatment. There seems to be a more manifest tendency to fall back upon the older methods, viz.—To “cap” the exposed nerve with a protecting shield previous to plugging; or, when not in a condition favorable to its preservation, to destroy it at once. The conditions favorable to success in the operation of perforating the fang to the nerve cavity, are so infrequent, and the danger of inflicting injury upon the nerve, resulting in its loss, so imminent, while the favorable cases seem to hold out so fair a prospect of success for the preservation of the nerve by other means, that many have been reluctant to resort to the

new operation ; hence it has probably not met with as much attention in practice as its merits deserve.

A few months ago, Dr. Arthur concluded a series of articles, able and elaborate, in the American Journal of Dental Science, upon this subject of treating exposed dental nerves, wherein he recommends the endeavor to save such nerves in all cases when in a healthy condition, or before active inflammation has set in. In cases where the nerve is liable to be reached by a thorough excavation of the carious cavity, he does not attempt this, but allows a portion of the softened dentine to remain in the bottom, regarding it as the most natural capping for the nerve ; being careful, however, to remove it entirely from the sides and margins of the cavity. He conceives the process of caries to be kept up by acidifying agencies from without, contending that if moisture and air be effectually excluded, the decay will be arrested. Similar views have been subsequently advanced by others. It is recommended previous to filling the cavities, that they be well cleansed with an alkaline solution, as carbonate of soda, in order to neutralize the acid particles permeating the decomposing dentine that may be left. Conflicting, as it does, with the hitherto received opinion, and giving countenance, as it may, to imperfect operations in the hands of the ignorant and unprincipled, it is not surprising that this doctrine should startle the profession and meet with strong opposition. It will be seen to involve an essential modification of the theory of dentinal decay which generally obtains. It will be recollected that Professor Harris, who is high authority in the profession, in an able article, a few years ago, on the treatment of exposed dental nerves, strictly enjoined the removal of every particle of diseased dentine, even to the complete exposure of the nerve, which is then capped by a thin plate of gold, or, as Dr. H. preferred, by arching the gold foil over it in the process of filling.

As a capping, preference is now given to non-conducting substances, such as asbestos, gutta percha, goose quill, or horn, etc., each of which has in turn employed the "goose quill," and we may say the "horn," to herald forth its special claims. The great object is to get a non conductor that can be used with facility, and adapted to the bottom of the cavity. In an article in his last Journal, Dr. Harris informs us, that he now employs for

the purpose, "Hill's Stopping"—a preparation of gutta percha—believing it to combine the most essential requisites

When desirable to destroy a nerve, if in a molar tooth, arsenic in some form is now pretty universally conceded to be the best agent, but for the branchless nerves of front teeth the probe, stylet, or "nerve extractor" is used; some recommend an instrument in all cases, notwithstanding the difficulty, pain and frequent uncertainty of the operation when the bifurcating pulps of molar teeth are dealt with. The nerve being destroyed, all concede the advantage of thoroughly cleansing the nerve canals and filling them securely to the apices with gold.

For obtunding the sensibility of the dentine in a cavity of decay, arsenious acid, formerly used to some extent, is now discountenanced, being attended with danger to the nerve pulp, the solution appearing to penetrate through the tooth substance. But cobalt has been recommended and used by eminent practitioners as devoid of danger, although its virtue depends on the arsenic it contains, this being confined in its operation, in consequence of its combination with the cobalt. We have employed with advantage, and therefore proposed to others, metallic arsenic in fine powder, applying on wax, acting as it does in this form only on the surface of dentine at the point of contact. Dr. Harris, in the paper last referred to, recommends the chloride of zinc as answering every purpose, although it frequently requires repeated application and is somewhat painful. To check denudation or superficial decay, nitrate of silver has been recently strongly advocated. But this and caustic potash, are, according to our apprehension, old remedies for the purpose.

Much is being written at the present about the article called "sponge gold," or "gold crystal," proposed as a material for filling teeth, in regard to which we gave in our July number, the opinion of several writers. There seems to be two forms of this article, owing probably to the different modes of preparation.—The sponge gold, as we should characterize, that, for instance, manufactured by White, of Utica, is in the form of a brown pulverable, adherent powder, with very little of the appearance of gold until packed and burnished, when it presents the aspect of solid gold. The first specimen we received of this we were much pleased with. The second lot we do not like so well; in-

deed it is quite inferior in its appearance and working. It has the aspect of chocolate, crumbles easily, is troublesome in packing and extremely difficult to weld into a solid plug. The other form is that prepared by Taft & Watt, of Xenia, Ohio. This may be at once recognized as gold crystal. Though browner than foil it bears the aspect of gold before compacted. It appears to consist of a mesh of crystalized particles of gold, interwoven and coherring together with considerable tenacity. We prefer it in the main to the best quality of "sponge gold," that we have used, while it is in every respect superior to the second lot just mentioned. We doubt not both articles will prove serviceable in dental practice for certain cases, and are of opinion that this form of gold will, in time, be so perfected as to come into general use.

LETTER FROM DR. JOHN ALLEN.

EDITOR RECORDER,

Dear Sir,—On my return from Cincinnati, I found that the report which emanated from Dr. Hunter's office, (as I was informed by the editor of the paper in which it was published, viz.—"The Daily Enquirer," of Cincinnati,) in relation to the case of Allen *vs.* Hunter, now pending in the Circuit Court of the United States, for the District of Ohio, for infringement of patent, for an improvement in setting Artificial Teeth, was already in type, in the Dental Recorder, as copied from the above-named paper. I then stated that, that report was not official, but that you should have the official report for the next number of the Recorder.

I accordingly wrote to my attorney, to procure and forward it to me, in answer to which, I received the following.

J. ALLEN.

DR. J. ALLEN,

Sir,—I have your letter of the 22nd. I have also read the article in the Dental Recorder. It is false in every particular, excepting, the naked fact of the continuance of the cause. It is

not usual to make a written statement and file it in court, *in that court*, and hence it is impossible to get an official statement of the reasons for the continuance. The following are the facts of the case:—

It is not true that you begged for a continuance. I made an oral application, stating the grounds for continuance, and his honor, Judge McLean, stated at once, that the cause would be continued.

I confine my grounds to three main points.

First—The plaintiff supposed, from the boasting publications of the defendant, that the defendant would not deny that he had used the identical improvement claimed by Dr. Allen in his patent, but rest his defence upon the want of originality on the part of the patentee, and therefore upon that part of the case, the plaintiff had not prepared the proof as strong as the truth would warrant; and it was not until after the commencement of the term of the court, that the plaintiff understood that the denial of the infringement was the main ground of the defence. It was, therefore, thought advisable by counsel, to strengthen this point.

Second—In the defendant's exceptions to the plaintiff's patent, he refers to a work, in which, as the defendant claims, the author describes a method of setting teeth, like that patented by the plaintiff. After this notice in defendant's plea, was filed and obtained by the plaintiff, there was not time enough before the commencement of the term, for the counsel to get possession of, and examine this publication. It is true that, judging from the utter failure of a similar notice, in reference to other publications, there would have been no risk in going to trial, but the counsel preferred examining the work, before the trial was had.

Third—The plaintiff had an affidavit of the celebrated Dr. James Robinson, of London, author of "Robinson on the Teeth," made before the Lord Mayor of London, affirming his knowledge of Dr. Allen's improved method of mounting teeth upon metallic plates, and that in all his practice, he had never seen any work done by any other person in like manner, as that adopted by Dr. Allen. The deposition of Dr. Robinson upon this point, was deemed important by plaintiff's counsel, who de-

sired to have his deposition in a shape to be read on trial, as an error had occurred in the taking of said deposition.

The cause will, no doubt, be tried at the next term of the court.

C. D. COFFIN.

THE fact of a member of the Dental Profession, in Philadelphia, having been arraigned and convicted, on the charge of committing a gross outrage on a lady patient, while administering an anæsthetic agent, has led the fraternity in this city to meet and compare notes on the subject. The principal, and, in fact, only direct evidence against the accused, was given by the party on whom the offence was said to have been committed; and this would naturally suggest the question whether the state of the mind, induced by ether or chloroform, would not give a direction to the thoughts of the patient, entirely unwarranted by any actual occurrences. The fact was clearly proven, at one of the meetings referred to, that, in numberless instances, the impressions on the mind were so vivid and life-like, that all explanation and persuasion failed to remove them.

On the evening of December 8th, pursuant to a call, in which surgeons and physicians were invited to participate in the proceedings, a meeting was held at 59 Bond Street, to consider the subject, with special reference to the case above mentioned. Dr. C. C. Allen was called to the chair. Resolutions were offered to the effect, that the object of the meeting would be better subserved by statements of the experience of dentists, as to the effects of ether and chloroform, and that no interference with the executive should be offered.

Dr. Gunning referred to reports of the previous meeting, which had appeared in the daily papers, and said that public opinion had been much excited by such.

Dr. Castle did not think that hallucination was produced by ether to the extent supposed.

Dr. Clarke had seen ladies behave very foolishly, while under ether, and thought it unreasonable to accept the evidence of one witness, and that one, at the time, irrational, without requiring further corroboration.

Dr. Covell mentioned the case of a patient, who was perfectly unconscious of pain, yet heard, and afterwards repeated a remark made to her physician, during the operation.

Dr. J. W. Smith had found the effects of ether and chloroform to differ considerably; the former excites much more; chloroform is more easily controlled. As to permanency of hallucinations, a man supposed he had been in hell, the idea continued to haunt him, and finally produced insanity; a year at the hospital did not remove the delusion.

The meeting finally adjourned without acting definitely on any of the resolutions.

Several signatures were affixed to a petition to be presented to the Governor of Pennsylvania.

